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PRESIDENTIAL ADDRESS.*

BY G. ALDER BLUMER, M. D.,

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For a whole year such a thing as serenity of soul is unknown to the man who awakes to find greatness accidentally thrust upon him as the President-elect of an Association like this. From that moment of initial apprehension to this one of supreme anxiety, the thought of delivering the annual address haunts him during every waking hour and even racks his subconscious mind while he seems to sleep o'nights. If for an instant he forget his humility and, imagining a vain thing, think himself qualified to launch authoritative utterances *in vacuo,* forthwith he recalls the saying of a British historian, "Before you attempt to write on any subject, be quite certain that you can say something fresh about it," whereat, with quickened olfactory sense, he sniffs the air of staleness that clings to his thoughts and their clothing.

> He makes his heart a prey to black Despair,
> He eats not, drinks not, sleeps not, has no use
> Of anything but thought; or, if he talks,
> 'Tis to himself.

And if there be solace of a sort in the voice of Ecclesiastes, warning us not unkindly against the needless elaboration of our own ignorance, "God is in heaven, and thou upon earth; therefore let thy words be few," there is none whatever for the present writer in the caution given twenty-three years ago in this city by

* Delivered at the meeting of the American Medico-Psychological Association, at Washington, Tuesday, May 12, 1903.

a witty Secretary of State to a United States consul about to assume the duties of his office in Scotland. Bret Harte had insisted upon receiving his parting instructions in audience with Mr. Evarts himself, whereupon the grand old man, wheeling about in his chair and casting one lank leg over the other, addressed the man of letters in these solemn, admonitory words: "Mr. Harte, you are going to Glasgow with laurels upon your brow; have a care that you do not browse upon your laurels." In truth, gentlemen of the Association, the very bay leaves and berries with which you have seen fit to bedeck an unworthy president in this instance must for the nonce be his food, and, alas, baccalaureate "ambition should be made of sterner stuff."

With this prefatory confession, to which I add an acknowledgment most profound of the honor which this Association has conferred upon me, I shall proceed to make some discursive remarks upon a few subjects of general interest to our specialty, even as "the wind bloweth where it listeth."

The Outlook for Psychiatry.

And what better beginning than briefly to refer to the happy event in our history which brings us together in this city at this time? We are met in affiliation with and as a constituent member of the American Congress of Physicians and Surgeons, such union having been effected since our last meeting in Montreal, when Providence was selected as our place of annual assembly, subject to this change in the event of that fact. We are sensible of the prjvilege which we thus enjoy and have a fresh incentive to achievement in the stimulating fellowship. If there still be detractors here and there who allege that psychiatry is a laggard in the race of the specialties, the account which we may be permitted to give of our stewardship every three years will either furnish proof of their contention or of our own claim to sit in this Congress, not by sufferance, not by virtue of seniority as the oldest national medical society on this continent, but solely by reason of good work well done. We may well rejoice, then, that we have this opportunity to come out into the open and show our colors. Shall we be held responsible, in fairness, if it be complained that the actual state of our knowledge of brain disease

is not on a par with that of other departments of human pathology? The complaint may perchance serve the useful purpose of a goad and so teach us to think less of the little that we know than of the much we know not, but it ignores the fact that the advance of knowledge must necessarily be from the simpler to the complex. In the whole medical hierarchy there is no specialty fraught with greater perplexities, insomuch that it was natural and logical that, while we may ourselves claim to have approached and met its stupendous problems with no faint heart and with a reasonable measure of success, recognition should have come to us tardily under the slow but sure compulsion of achievement, while other branches of medicine, driving the ploughshare over easier and narrower fields of research—I say it not in disparagement—have seemed to advance by leaps and bounds and to permit their votaries to hold high the head in "pride, rank pride, and haughtiness of soul."

"In the long run," said Professor Clifford Allbutt not long ago, "to construct a true method is a greater service to mankind than to discover items of knowledge," thus furnishing the keynote to the Boyle Lecture on the Rise of the Experimental Method in Oxford. Commenting upon which a sympathetic critic,[1] in felicitous epigram, remarks that, "A finger-post for future guidance is a more lasting memorial than a mausoleum of misdirected energy." During the past few years, and more especially during the year last past, we have had much occasion for gratitude in the provision of many such finger-posts. The impotence of effete methods has been emphasized, and under the influence of such schools as the McLean, Worcester, Sheppard and Enoch Pratt Hospitals and the Pathological Institute of New York,—to mention only a few—we have learned the lesson that the scientific study of psychiatry consists primarily in the study of the mental phenomena, not physical conditions; and that the study of the latter loses a large part of its value unless the mental phenomena have been well studied, and of itself can never give us an understanding of insanity. Those of you who were present at the annual meeting at Montreal last year may remember that this was the lesson of Dr. E. Stanley Abbott's impressive paper on the

[1] British Med. Journal, Jan. 17, 1903.

Criteria of Insanity and Problems of Psychiatry.[3] And the practical point is this, namely, that "by modern scientific methods scientific work in the field which is peculiarly the domain of psychiatry can be done in hospitals not equipped with laboratories. The work so done will have the same value for subsequent laboratory work that the accurate and detailed symptomatology in general medicine had for modern pathological anatomy.

There are two distinct schools of psychiatry to-day. In the one are the men who say that we can group our patients clinically, that is, by their behavior, while in the other are those who declare that we can only group them as we ascertain the lesions of the nervous system which give rise to the morbid conduct. On the one hand are the disciples of the microscope, on the other those of the ward and bedside. Psychiatry may be said to be "up against" the same problem that faced chemistry years ago, namely, the necessity of formulating a working theory. To-day we know nothing of the manner in which the atoms and molecules behave and yet so nicely have the chemicals been grouped according to their action and re-action that we can predict with accuracy the nature of the resulting compound to be formed by the union of two substances, neither of which we know except in theory. In other words, we can make a prognosis in chemistry. And what was done for chemistry years ago, Kraepelin is doing for psychiatry to-day. More than any other man of recent times the great teacher of Heidelberg has brought us nearer to the place where we may safely predict the issue in a given case of mental disease. He has taught us how to study our cases with the greatest profit alike to the patients and ourselves. Perhaps we were already studying each individual case carefully, but we were not comparing case with case. We had already noted that A was depressed and that B was depressed, and had perhaps grouped them roughly as depressed forms; but we had failed to wonder why A always shrank from the touch of our hands while B remained indifferent. And so with the thousand little details which we had been wont to regard as of trifling import, we were led to be more careful. And after we had compared these data we were taught to take the whole clinical complex and compare it

[3] American Journal of Insanity, July, 1902.

with this and with that other one until the least common denominator had been found. Let us not complain if in the majority of instances that l. c. d. spells *dementia praecox*. "To be sure," says Professor Bleuler of Zurich,[3] "the name is not well chosen; but the question is only that of a *nomen et flatus vocis* and not of the thing." Even if "by naming a disease you erect an idol with special qualities which you set yourself at once to destroy," as Savage once said,[4] that wise man was quick to admit that "for the convenience of discussing groups of symptoms we have to label them." Best of all, Kraepelin has instilled into our minds more of the scientific spirit. His own spirit is one of beautiful tolerance and his system, in keeping with it, one of perfect adjustability. Frequently he is heard to say, "These things seem to be so, but more careful observation is needed to confirm them." The future will doubtless bring many changes in the Kraepelin classification and none so likely to make them as the master himself—but though its form may change beyond recognition, the system of which the classification is but the product is bedded on rock and will endure.

As to New York.

While for several years the New York State Hospital service, in the evolution of its centripetal system, has been made to feel "the whips and scorns of time," and under fardels unbearable "to grunt and sweat under a weary life," a saviour has appeared in the purely medical field and set himself the praiseworthy task of making "good the final goal of ill" by showing the medical officers how to make a system of centralization useful in the development of the medical spirit in the State institutions. Dr. Ira Van Gieson, eminent in his peculiar sphere and working under difficulties that all must recognize, paved the way for his successor in the Pathological Institute. In a paper[5] which every

[3] Dementia Praecox, By Dr. E. Bleuler, The Journal of Mental Pathology, Vol. III, Nos. 4, 5, 1902-1903.

[4] President's Address, Journal of Mental Science, Oct., 1886.

[5] Aims and Plans of the Pathological Institute for the New York State Hospitals. By Dr. Adolf Meyer. Printed at the Manhattan State Hospital, East, Ward's Island, New York City, Dec., 1902.

member of this Association should read and ponder, Dr. Adolf Meyer, the new Director, outlines the aims and plans of the Pathological Institute for the New York State Hospitals in a spirit of such optimism that even he who catches ever so little of it becomes at once a man of confident to-morrows. At a meeting of this Association eight years ago, as some of us remember, Dr. Meyer expressed the hope that the day might soon come when a special pathologist in the old sense would no longer be needed. "I was then," he now says, "and still am, convinced that the progress of medical work depends not on the mere introduction of a man with skill for microscopical work, but on the promotion of a spirit of accuracy in whatever work is done, and in whatever is written or said about the patients. The various hospitals should be able to encourage their assistants to conduct *all* the practical medical work according to acknowledged medical standards. Every assistant should thus acquire the habit of planning accurate statements of facts, statements of the indications for action and opinions, and also the nature of the disease, its probable course and the possibility of introducing therapeutic measures; and in the case of autopsy, the methods of getting at the facts and of formulating indications for more minute investigations. In addition to this, the physicians ought to be encouraged to record data which might be of advantage for collateral scientific progress, even if they cannot be directly utilized in the special case or for the specific medical indications just mentioned. But this work for science' sake is a secondary matter which, however, will come naturally." This sturdy champion of scientific honesty insists further that "we cannot lay too much stress on the necessity of planning work according to what is actually mature and wanted, instead of according to what perhaps may be done."

> So many worlds, so much to do,
> So little done, such things to be.

No wonder that under such a leader the brethren of New York are encouraged to labor, sometimes against heavy odds, in the hope that a better day may dawn for them in the administrative sphere of their work. No wonder they have eagerly seized the opportunity furnished, at the instance of the President of the New York Commission in Lunacy, Dr. Frederick Peterson, to receive

instruction under Dr. Meyer at the Central Institute, with the result that over sixty men of the service have gone back to their hospitals with lighter hearts and freshened zeal. And this notwithstanding the apparent subordination in New York State of the scientific aspect of the work to the business side as shown by the statistics of the handbook of the State hospitals. For last year, while there were one hundred and twenty-three physicians in the fourteen State hospitals, five years previously, when there were three thousand fewer patients, there were one hundred and twenty-five physicians. Of like significance, too, are the figures relating to salaries. The legislature of 1901 made an appropriation for salaries of officers amounting to $265,000; in 1902 the appropriation was $255,000; and this year the proposed appropriation is $230,000, or at an annual rate of about $9.50 per capita for the estimated number of patients for the next fiscal year.[8]

The Evils of Centralization.

Thus we are brought naturally to a consideration of the New York situation in its political aspects. My apology, if apology be needed, for special animadversion upon the policy of the Empire State must be the fact that the prediction "As goes New York so goes the Union" has its frequent application in the administration of the charities of other States. And I have it very much at heart to warn other States against such disaster so far as the insane are concerned. It may be assumed for the present purpose that most members of this body are familiar with the main features of State care in New York and that they are aware that the Commission in Lunacy, instead of being merely an advisory board, is clothed with executive powers of an extraordinary character, insomuch that practically all authority emanates from the Capitol at Albany. The system is one that checks ambition, subordinates the individual superintendent to the crippling spirit of bureaucracy and collectivism, and is in all respects inimical to the full and free growth not only of the medical officers themselves but of the hospitals over which they have been called to minister. Greed of power and arrogance of office had apparently reached their limit before the winter of 1902. One thought:

[8] Charities, April 11, 1903.

"Hitherto shalt thou come, but no further; and here shall thy proud waves be stayed." But the message of Governor Odell to the Legislature showed very clearly that the end was not yet. Heretofore each institution had had its board of managers charged with the general management, direction and control of the hospitals, subject to the greater powers of the State Commission in Lunacy; and, subject to the Civil Service laws, the managers also had the power of appointing the superintendent. Under a specious charge of extravagance, which at once became ridiculous when it was remembered that the managers were without financial authority whatsoever and that all proposed expenditures had been subject to review by the Commission, the Governor recommended that the boards be abolished and that their executive powers be vested in the State Commission in Lunacy. Bills embodying the Governor's recommendation were at once introduced, and, after some twenty amendments had been made, not one of which affected the principles involved, in due course became law. Whereas in its report for 1889, the Commission had said: "The superintendent, or chief medical officer of every asylum should be clothed with the absolute power of appointment and removal of all officers subordinate to himself. It is doubtful if the best results can be obtained under any other system," that doubt was apparently removed from the Commission's mind thirteen years later, when it not only acquired that power itself, but was given, subject to the approval of the Governor, still further powers, namely, "to transfer superintendents and assistant physicians from one State hospital to another, to abolish the office of any of the resident officers or employees, and to transfer any of the powers and duties of the superintendent to another officer to be appointed by the Commission, to prescribe the form of, and the subjects to be embraced in, the superintendents' annual reports" (Save the mark!). The approval of the Commission was required before the superintendent could remove any resident officer. The sole power to appoint and remove the steward, which had formerly been vested in the superintendent, was given to the Commission. The Commission might summon any officers of the State hospitals to meet it at its office or elsewhere.[1]

[1] Tenth Annual Report of the State Charities Aid Association to the State Commission in Lunacy, Nov. 1, 1902.

No one who has had experience in what the world calls practical politics can doubt that the tendency of self-seeking men will be to look for reward for service rendered in the procurement of office in this powerful oligarchy controlling the bodies and souls of thousands of their fellow-citizens and the disbursement of millions of money. For if the superintendent and assistant physicians may be moved about like pawns on a chess-board at the behest of the Commission, and the former may have any of his powers and duties transferred, under like mandate, to another officer to be appointed by the Commission subject to the approval of the Governor; if the tawny lion himself is thus seen "pawing to get free his hinder parts," what shall be said of the thraldom of the smaller fry of such a shackled service? It is true, and happily true, that the President of the Lunacy Commission is a man eminent in character and attainments, and far be it from me to impugn the motives of the present Executive, but let us not forget that "a system of government must be judged, not by the probable action of any present official, but by the possible action of any future official."

Pardon me, gentlemen, if I seem to go into too great detail in exposing the degradation of a once proud service. We may well exclaim in sadness, "How are the mighty fallen in the midst of the battle!" In the passage of this crushing legislation one cannot but be impressed with the seeming impotence of public opinion against political organization at Albany. Prominent citizens flocked to the Capitol to protest against the mischievous bills, among them the Hon. Wm. Church Osborn, ex-Commissioner in Lunacy; the New York and the provincial press hurled their anathemas; mass-meetings were held; the State Charities Aid Association led a forlorn hope most valiantly in its attempt "to pluck up drowned honour by the locks;" not a man appeared to champion the new legislation and no written arguments were presented in its behalf. Words of truth and soberness are but wasted breath when the man to whom they are spoken is "wiser in his own conceit than seven men that can render a reason." And in this context, I pause a moment to applaud the work of the State Charities Aid Association, a noble band of men and women, without whose initiative and influence the State Care act would not have been passed, on behalf of the medical officers of the

State hospitals. It has insisted for years that the salvation of the service lies in the retention in it of men of character. In the report from which I have already quoted, it says truly: "The character of the medical superintendent is the vital element upon which the efficient administration of a State hospital must depend, and the criterion of the success of any system must be based on whether it attracts and holds the best class of medical men as superintendents." After all, it is not so much what a man does as what he is that gives him distinction everywhere; and when a medical superintendent is denied the opportunity of showing what he is, is compelled to suppress every instinct of self-sovereignty before such despotism as that of which we are speaking; if he have character, his soul will rebel against his oppressors, for "Rebellion to tyrants is obedience to God," and he will be sustained in his struggle to the bitter end till once more the New York service shall have been made fit for the gentlemen who compose it. So let him fight the good fight as

> One who never turned his back but marched breast forward,
> Never doubted clouds would break,
> Never dreamed, though right were worsted, wrong would triumph,
> Held we fall to rise, are baffled to fight better,
> Sleep to wake.

The Increase of Insanity.

No annual address can safely omit reference to that subject of perennial interest, to alienist and layman alike—the increase of insanity. And as no question is put with greater frequency to members of this Association by the intelligent layman than, "Is insanity on the increase?" it is well for us to have a few data in mind to answer him. That industrious statistician and eminent publicist, Mr. F. B. Sanborn, has kindly given me for my use some figures prepared for his report to the National Conference of Charities and Correction, which is just concluding its annual session at Atlanta. His report refers to New England only, though it is not without application to other parts of our country. A study of Mr. Sanborn's figures no longer leaves it doubtful that the insane are increasing in New England beyond the natural increase of the population, however much disagreement there may be as to the relative increase in different States.

While everywhere the number of insane increases, so does the total population, with the possible exception of Vermont and Maine. These two States lose by migration to other communities about as many as they receive from outside, and the gain by births is small. Yet the example of Ireland, as Mr. Sanborn points out, gives proof that the insane may increase while the population diminishes, and this would seem to be true of Maine and Vermont. Census enumeration, whether of federal or State direction, is notoriously untrustworthy in this matter of the insane, otherwise the proof might be established beyond peradventure. Witness the inconsistency in the enumerations at different dates. In Maine the federal census of 1880 gave 1542 insane in a population of 648,936; but ten years earlier it gave only 792 among 625,000, and ten years later it gave only 1288 among 661,000. Mr. Sanborn takes the very moderate estimate of 1400 at present, in a population of 661,000, although his own judgment is that the true number exceeds 1600. There were under asylum treatment in 1901, when the new institution at Bangor was opened, 785 at the old Augusta hospital; at present, after an interval of nineteen months, there are 865 in the two asylums. Thus we have a gain of asylum cases of about 100 in two years, or at the rate of 50, or more than six per cent a year; and, though the actual gain in the whole State must have been less—the opening of a new asylum always increasing the new commitments beyond the average—it is evident to Mr. Sanborn, and his conclusion seems conservative, that allowance must be made in Maine for a gain of at least two per cent a year. Yet Maine's total population has not shown a gain of twelve per cent in thirty years. The returns from the Massachusetts Board of Insanity show (April 1, 1903) 9644 insane persons where six years ago there were less than 7250, a gain of about 400 a year, or more than five per cent. Dr. Copp writes: "On October 1, 1897, there were in Massachusetts in public institutions, or boarded out, in almshouses and private families, 7285 patients; on October 1, 1902, there were 9121; percentage of increase for five years, 25.2; annually, 5 per cent. I exclude private patients because so many of their patients are non-residents of Massachusetts." Not to go into tedious detail with reference to the other States of New England, we may sum up thus the estimates made by the reporter to the Conference:

Maine	1,400	perhaps	1,600
New Hampshire	900	"	1,200
Vermont	1,200	"	1,200
Massachusetts	11,000	"	11,000
Rhode Island	1,150	"	1,200
Connecticut	3,250	"	3,300
In all New England...	18,900	"	19,500

in a population of about 5,800,000. Thus we have one insane person to 307 inhabitants.

The Prevention of Insanity.

Whether or not insanity be on the increase, the fact that in New England and New York the ratio of insane to the general population is approximately as one to three hundred, is sufficiently impressive to bid us ask ourselves the question whether we are doing all in our power to prevent its occurrence. Personally I have no hesitation in answering that question in the negative. Never has there been a time, it is true, when the mental invalid has been better housed and more intelligently treated, and with our new departments for the insane in general hospitals and our so-called psychopathic hospitals which are to be, the future is big with promise. But, gentlemen, you will agree with me that preventive medicine is the highest development of medical science, and that the best way to diminish insanity is by its non-production. We all have opportunities to teach those simple lessons in social hygiene which are brought home to us more than to any other specialists in medicine, in the solemn doctrine, "The fathers have eaten sour grapes, and the children's teeth are set on edge;" but do we not, lest we hurt somebody's feelings, constantly shirk our responsibilities as mental physicians when we stand silently by as witnesses of the union of two stocks that is bound to be the parent of nervous and mental disease in the offspring? For one ambitious mother who schemes to marry off her daughters, regardless of consequences, I believe there are ninety-nine (such is my faith in womanhood) who would listen to and not resent, even if they did not often act upon, a hint in hygiene from the family physician. To us

alienists it is so reasonable to protest that no person of direct insane inheritance shall marry another of like taint that we wonder why the criminality of such unions does not occur to the men and women, often of apparently average moral sense in other directions, who contract or countenance them. There is an appalling amount of ignorance on this subject—ignorance that has its roots heaven knows where. Even people who pass in the community for reasonable beings often imagine that there is initiated some mystic process, psychic or physical, that makes for sanity when marriage of whatsoever sort is consummated. Few of us have not been asked whether a neurotic or psychopathic patient would not be "all right" if he or she married; and in cases where insanity develops soon after marriage and before pregnancy, it is a common enough delusion that child-bearing will cure the psychosis. It is encouraging to notice, however, that the principle that prevention is the chief end of all medicine is gaining ground among the laity and that the lay press has taken to educating the public on this very subject of insanity and marriage. In a recent article in the *Westminster Review*,[8] Dr. A. W. Wilcox shows, by clinical and statistical evidence, that heredity and drink are the two overwhelmingly important causes of insanity and advocates as preventive measures "the prohibition of the marriage of persons with a distinct family history of insanity or alcoholism, the permanent detention of persons after a third admission to an asylum, and the granting of divorce from the unfortunate victims of incurable insanity or continued drunkenness." Harsh as such measures may seem to some and shocking as they may be to the religious sentiment of others, it is well for all of us to reflect that the making a human life is as serious a matter as the taking one. Men and women do not realize how much insanity is multiplied in the land by natural increase by birth. Nay, more, the fact was brought out in a report[9] by Dr. A. W. Wilmarth, Superintendent of the Wisconsin Home for the

[8] Insanity and Marriage. By A. W. Wilcox, Westminster Review, August, 1902. Journal of Mental Science, April, 1903.

[9] Proceedings of the Nat. Conf. of Charities and Corrections, Boston, 1902.

Feeble Minded, presented last year at the National Conference of Charities, that the tendency in degenerate families is to rear a larger number of children than in those of average intelligence. "Large families are found among all grades of society, but investigation seems to indicate that the higher the mental training of the parents, the less numerous the family, as a rule." And Kiernan has shown that the average number of children in ninety degenerate families, which he had observed, was eleven; while multiple births occurred more than ten times as frequently as in the population taken as a whole. The largest family coming to Dr. Wilmarth's own personal knowledge was eighteen. Thus it appears that while nature tends to check increase in the case of gross bodily infirmity, it is otherwise where only the higher faculties are involved in the degenerative process. And in these days when presidents of republics and of universities and emperors are exhorting to marriage and singing pæans to frequentative maternity, it is well that they ponder these things. Moreover, men and women of feeble intelligence are notoriously addicted to matrimony and by no means satisfied with one brood of defectives. Not long ago an elderly man of melancholy mien came to consult me about his wife, whose insane conduct had made life a burden from the ill-fated day of their marriage a year previously. The history bespoke a chronic psychosis of many years' duration. "But this woman is not your first wife?" I queried tentatively, for the tell-tale dye of his mustache suggested the successful widower. "No, sir," came the reply, lugubriously, "she is my fourth wife, and I am her fifth husband." When such things are so, and when, to quote Solomon, whose exceptional experience constitutes a claim to cathedral utterance in this context, "Wisdom crieth without; she uttereth her voice in the street," is it not high time, gentlemen, that our Legislatures should enact laws looking to the effective prohibition of the marriage of the unfit? Suggestions of this kind have been poohpoohed as without the pale of practical politics, but it is evident that nothing short of legal prevention will accomplish the end we have in view. A Connecticut statute of recent enactment forbids, under severe penalties, marriage between known defectives, and, further, prohibits the normal individual from con-

tracting marriage or living as husband and wife with any such person. In North Dakota the Creel bill of 1899 passed one branch of the Legislature. It provided that before a couple could marry they must obtain a license which should be granted to such only as should be able to produce a certificate from a medical board to the effect that they were free from infectious venereal disease, tuberculosis, epilepsy, hereditary insanity and confirmed inebriety. Similar legislation has been attempted in other States, as well as in European countries, but the practical politician is prone to look upon all such measures as the academic suggestion of the reformer and so to kill them. Speaking of such proposed legislation for the feeble-minded, Dr. M. W. Barr, of Elwyn, Pa., says: "After all, there is a good deal of sentimentality and false modesty in the repudiation of the idea of laws controlling increase. We simply seek for the helpless, ignorant, irresponsible, what the wealthy and indolent do for themselves." But even if bills to this intent fail of passage because public opinion is not yet ripe for them, they at least serve the useful purpose, when introduced, of calling attention to the evils with which it is their purpose to deal. It is amazing how far behind the scientific enlightenment of the age public opinion is in this obvious exigency. Four centuries ago Sir Thomas More filed his protest against the reckless practice of his generation in his Utopia: "Furthermore, in chuesing wyfes and husbandes, they observe earnestly and stratelye a custome which semed to us very fonde and folyshe." And thereupon he described what was done by "a sad and an honest matrone" and likewise by "a sage and discrete man" for the benefit of the parties of the first and second parts, adding that "they, on the other part do greatlye wonder at follye of all other nations, whyshe, in bying a colte, whereas a lytle money is in hazard, be so charye and circumspecte, that though he be almost bare, yet they wyll not bye hym oneles the saddel and all the harneiss be taken of, leaste under those coverynges be hydde som galle or soore. And yet in chuesing a wyfe, whych shal be either pleasure or displeasure to them all theire lyfe after, they be so recheles,"—and so forth. And he concludes: "If such deformitie happen by any chaunce after the marriage is consummate and finyshed, wel, there is no remedie but patience. Every man must

take his fortune wel a worthe. But it were wel done that a law were made wherebye all such deceytes mvghte be eschewed, and advoyed before hande." It's a far cry from Sir Thomas More to the twentieth century author of "Letters from a Self-made Merchant to His Son," but we find that identical sentiment embodied in a delicious *obiter dictum* in which the Chesterfield of the stockyards points out the perils that beset the son of to-day who goes a-wooing: "Marriages may be made in heaven, but most engagements are made in the back parlor, with the gas so low that a fellow doesn't really get a square look at what he's taking." There, gentlemen, is the whole philosophy of the subject in a nutshell. And the deplorable thing about it all being that young people sometimes prefer in this matter to be among "them that sit in darkness," it behooves us as alienists, in a figurative as well as an actual sense, to maintain a controlling interest in the switch that makes for brilliant illumination. *Fiat lux!* The myth that marriages are made in heaven has brought infinite disaster in its mendacious wake ever since the lie was first uttered. Marriages, although some of them may have the Divine sanction, are of the earth, earthy; and it is nothing less than sacrilege for erring men to hold Almighty God answerable for their blind folly while they run to cover under a make-believe ægis of heaven.

Marriages of Consanguinity.

A long chapter might be written on marriages of consanguinity, but this one shall be brief. Whether or not those with first cousins, both parties being healthy, and exhibiting, each in relation to the other, the complement of contrasting affinity, might be permitted, is a debatable question. But such cases are rare enough to be a negligible quantity in practice and do not affect the rule which German folk-lore has set to rhyme for the safe guidance of those who, being near of kin, might otherwise contract a closer relationship:

Heirathen ins Blut
Thut selten Gut:
Sterben, verderben,
Oder keine Erben.

Pathetic enough is a letter which comes to me while I am writing this paragraph. The lady rejoices that the outlook for mentally-stricken humanity is happily more hopeful in this age than ever before, and especially that hospitals for the insane no longer inspire in intelligent people a feeling of dread. "It is well I feel in this way," she writes, "since, with most of my immediate forbears cousins and a family tendency to mental disturbance, which in my father's case took the form of softening of the brain and in my mother's chronic meningitis, the outlook for myself is not over bright. Being without near kin I am forced to give some thought to these things, and to make provision for whatever the future may bring, so it is comforting to know that they are not universally regarded with horror." When such apprehension of mental breakdown shadows the life of an intelligent woman like my correspondent—and there are thousands of similar cases everywhere in our land—it is the veriest balderdash to prate about man's rightful intolerance of restriction in this matter of marriage. Short-sighted men and women, whose ideas of Christianity are so narrow as to restrict their interest in life to the salvation of the soul, are apt to forget not only what they owe to the body, but also their obligations to posterity. "It is as much a duty to transmit to the rising generation vigorous minds and bodies as to hand down to them a firmly constituted society and government. It is in his own case that man ventures to neglect the knowledge he has acquired of the beneficial effects of careful breeding."[10] And the blame lies at his own door when intensification of a morbid strain, whether by consanguinity or otherwise, is the price of his selfish unwisdom.[11]

The Exclusion of Defective Immigrants.

In line with the policy of prevention, which is here advocated, is that of keeping out insane and other defective immigrants by stringent federal statutes. Great credit is due the Commission in Lunacy of New York for its wide-awake and intelligent activity in such exclusion. Proceeding under authority of the laws of 1900,[12] which permitted the use of every endeavor "to secure

[10] George Darwin, Contemporary Review, August, 1873.

[11] See "Marriages of Consanguinity" (Editorial) Brit. Med. Journ., April 18, 1903.

[12] Chap. 380, Sec. 6, Laws of New York, 1900.

legislation from Congress to provide more effectually for the removal of alien and non-resident insane," and the expenditure of "a reasonable sum therefor from the monies appropriated for the use of the hospitals," the Commission sent to Washington as its special representative Mr. Goodwin Brown, ex-Commissioner. As *amicus curiae* it has been that gentleman's privilege to render our entire country a high order of public service by giving effective testimony at repeated hearings before the Industrial Commission of Congress. And in this better rôle of catholic publicist, be it said in condoning parenthesis, he has expiated *pro tanto* the ill-conceived centralizing legislation at Albany, of which, as Commissioner or the agent of the Commission, he was avowedly or putatively *magna pars*. Under the act passed March 3, 1903, Congress authorizes the exclusion of an immigrant who has been insane at any time within five years of the date of his arrival in the United States; and persons who have been twice under restraint for insanity and all epileptics and idiots are also excluded. Moreover, the time for deportation is by the act extended from one to three years from the date of arrival, and the Secretary of the Treasury is made the sole judge of the question of causes arising before or after the immigrant's landing. While this Immigration Act affects the welfare of every State in the Union, its especial importance with respect to the State of New York is obvious, for while her foreign-born population is only twenty-five per cent of the whole, fifty per cent of the inmates of State hospitals are of foreign birth.

In the foregoing remarks the attempt has been made "to see the individual in connection and co-operation with the whole." If in some particulars I have seemed to suggest the Utopia of Sir Thomas More, at least we may derive comfort and inspiration in pondering the tendency of modern morals four centuries after, from the cheery prediction of Lecky,[13] that "enthusiasm and self-sacrifice for some object which has no real bearing on the welfare of man will become rarer and will be less respected, and the condemnation that is passed on acts that are recognized as wrong will be much more proportioned that at present to the injury they inflict."

[13] The Map of Life, p. 61.

THE SYMPTOMATOLOGY AND TREATMENT OF TRAUMATIC INSANITY.[1]

By A. B. RICHARDSON, M. D.,

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The forms of diseases of the mind that have their origin in the effect of injury to the brain, direct or indirect, are quite varied, and I attempt a description of them with much hesitation and a consciousness of my inability to fully, or, I fear, satisfactorily accomplish it.

I shall divide the forms of traumatic insanity into two classes. To the first class to be considered belong those that result directly from the injury, where this is the direct and sufficient exciting cause, the insanity either following immediately after the injury, or being associated with symptoms developing from that date, or being of such a character in itself or following an injury of such character, although arising months or years later, as to justify the conclusion of a direct causal relation between them. In all such cases there is usually a reasonable proportion between the injury itself and the mental disease that follows, the latter being also of such a character as can be reasonably attributed to such an origin. I may premise the general statement, however, that the susceptibility of a given brain organization to the development of insanity from traumatic causes is, to a great extent, measured by its degree of instability either original and congenital or acquired through some prejudicial influence either of environment or habits of life. In other words, all brain injuries of a given character do not produce insanity in equal degree or of like character in all cases.

Predisposition is a considerable factor in the causation, in these cases as well as in those of non-traumatic origin. I believe,

[1] Read before the American Medico-Psychological Association, at Washington, May 13, 1903.

too, that the tendency is to overestimate the effect of trauma as a cause of insanity. That it not infrequently does produce mental disorder is quite true, but the tendency almost invariably is for the friends to magnify the influence of any previous head injury in a given case and to minimize the influence of predisposing causes or of other exciting causes, such as bad habits, unfavorable environmental conditions, or moral influences. The insanity that results from this class of head injuries may develop immediately after the injury and accompany or follow immediately after the subsidence of the symptoms which are physical evidences of the trauma, such as meningitis, cerebritis, or destruction or loss of tissue. It may take the form of continuous delirium with hallucinations or delusions, and pass away with the subsidence of the inflammation or of the primary shock, such conditions being in fact scarcely true insanities and only justly so-called when of long duration or accompanied by lapse of memory or mental perversion beyond that of temporary fever delirium. In other cases the insanity so developing may be permanent. I have seen persistent delusional insanity, continuing for years and until death from intercurrent physical disease, follow directly a blow to the head without fracture, where the autopsy revealed evidence of extensive pachymeningitis externa. In another case extreme and permanent dementia followed injury to the head, the patient sitting about in fixed attitudes, and uniformly in the same place. No autopsy was made in this case, but there was no evidence of fracture.

Skae's well-known case may also be mentioned, where a blow to the head causing a fracture of the skull with depression produced almost immediately marked changes in disposition and moral characteristics, the patient, from being cheerful, of happy disposition, attentive to family and business obligations, becoming the reverse—irritable, morose, immoral and generally unreliable. The operation of trephining, with elevation of the depressed bone, restored the former characteristics and a condition of usual mental health.

Epilepsy not infrequently results immediately from injury to the head. I have several such patients under treatment at present. Usually the mental disorder that results is not different in character from that which follows epilepsy from other causes.

The following case is interesting from the fact that recovery from both the epilepsy and insanity followed within a comparatively short period. A gunner from the U. S. Navy, 29 years in the service, about 50 years of age, fell about 15 feet on the deck of a ship, striking his head. He was unconscious for most of a day thereafter. He was then able to attend mess and to discharge some of his duties, but felt weak, had more or less confusion of mind and a bad feeling in his head. A few days later he had a convulsion resembling epilepsy and within two or three weeks two or three other attacks of like character. He became more confused, at times considerably excited with fleeting delusions of suspicion and was ordered to the hospital. Within six weeks from the date of the injury he had apparently recovered, had no recurrence of convulsions, was rational in conversation and action and gradually regained his physical strength. This case was uncomplicated by excessive use of alcohol or any other exciting cause.

I recall another interesting case of a chorister boy who was struck on the head, during service in church, by a heavy incense vessel. He was knocked down by the blow and was unconscious for a half hour or so. Almost immediately thereafter he had severe headache, a bad feeling in his head otherwise, showed some change in disposition, was more irritable, was somewhat lethargic and had some difficulty in accomplishing his ordinary work. He soon developed attacks of maniacal excitement, resembling psychical epilepsy, coming on suddenly except that they were preceded by severe headache, the maniacal attacks lasting an hour or so, later continuing for a day or more, and terminating with sleep. He was entirely delirious and incoherent during the attacks. These recurred more frequently until they came every few days. He showed a marked anæmia also, which became pronounced within a few months, his complexion being quite waxy in appearance. The scar on the head was sensitive to pressure and trephining was advised. The bone was not injured, there was no adhesion of the dura and no evidence of adjacent disease. There was some bulging of the dura and no pulsation when first exposed. There was a general leakage of serum and the next morning pulsation was present. The scalp healed after some suppuration and the patient had no return of

the maniacal attacks, became gradually of ruddy complexion and within few months was the picture of a healthy, vigorous German boy. He had no convulsions at any time.

Various forms of mental disturbance have been reported as following injury to the head after several months or years. I do not believe that these show any especial peculiarities in their symptomatology. Bevan Lewis states that 20 per cent of cases of recurrent insanity in males have a traumatic origin. My experience, however, does not bear out this statement. I believe in most cases there will be some other evidence of damage to the brain in the interim, such as severe or frequent headache, unusual or unpleasant sensations in the head, an intolerance of heat, and of alcohol, more or less change in disposition, greater irritability, or other evidence of disturbance of brain functions. The insanity which develops may take the form of depression, of systematized and primary delusions, maniacal excitement, progressive dementia or even paresis.

Where insanity develops years after a head injury, without evidence of brain disorder in the interim, I question whether we are justified in ascribing the attack primarily to the trauma. Doubtless it may in such cases increase a predisposition already existing and render other exciting causes more potent for evil. This is especially true of the effect of alcoholic indulgence, a smaller amount producing mental disorder in some such cases after head injury and tending to more serious forms of mind disturbance.

I find a great diversity of opinion among authors as to the existence of a special symptomatology of insanity following head injuries. Bucknill and Tuke believe there is no special form of insanity so produced in which the nature of the cause is shown in the symptoms. Kraft Ebing thinks in all cases there must be a predisposing cause in addition. Clouston states that the most characteristic are accompanied by motor symptoms, shown either by affection of speech or slight hemiplegia, general muscular weakness or convulsions. Such symptoms as headache, vertigo and hallucinations are also frequent. The mental symptoms, he thinks, tend to show an irritable or impulsive dementia, or fixed delusions. Spitzka says that lapses of memory of long duration may follow head injury and may recover or pass into

permanent deterioration. He holds that distinctive traumatic insanity is developed on a basis of traumatic neuroses. These we will consider later. According to Berkeley all injuries to the skull or brain may be followed soon or remotely by progressive dementia, in late cases the trauma causing a morbid process which starts from the point of injury and gradually extends to the brain and meninges. He thinks that trauma of slight degree may cause periodic insanity, circular or maniacal in character. He also states that the degree of insanity following head injury depends largely upon the degree of instability of the nervous system.

Defendorf says that symptoms develop gradually a few weeks or months after the injury and consist chiefly of despondency, with anxiety, fever, loss of power of physical and mental resistance and inability to undergo strain. Hypochondriacal tendencies are frequently noted. Brower and Bannister state that head injuries are less liable to develop actual insanity than to produce neurasthenic and hysterical symptoms. Chase says that Mickle gives 280 cases of paresis out of 4284 as due to traumatism of the head; 97 of these were said to be due to sunstroke; he does not differentiate the symptomatology.

Kirchoff says that, when following immediately after the head injury, there are usually accompanying headache, vertigo, hallucinations, sensory and motor disturbances and paralyses. Slowly developing cases show irritability and weakness often from the start, and sometimes epileptiform convulsions; they are easily exhausted and have diminished resistance to alcohol.

Blandford does not differentiate traumatism as a cause nor describe any special symptomatology. Regis gives no special symptoms as due to traumatic causes. Griesinger holds that injury to the head is of great importance as a cause of insanity and may produce dementia, with or without maniacal excitement. It may appear at once or follow two or three years later. He quotes Schlager as stating that of 500 such patients 49 were found in whom the development of the disease stood in direct relation to the consequences of a concussion. In 21 the concussion was followed by immediate loss of consciousness, in 16 by simple mental confusion, in 12 by dull pain in the head. In 19 the mental disease began within one year, but in the majority the

commencement of the insanity dated from four to ten years after the injury. In 18 cases there was dullness of hearing, in 20 great irritability and tendency to violent outbursts. In 14 suicidal tendencies were present. Weakness of memory and confusion of mind were not infrequent; 7 were cases of paresis.

The second class of cases resulting from trauma embraces those in which there is no reasonable proportion between the injury or shock, either physical or mental, and the mental disorder which follows. As far as there is an injurious effect shown at the time of the accident or following soon thereafter, it is almost wholly psychic or mental in character, the physical injury being slight and inconsequential. In most of these cases there is a marked instability of the nervous system normal to the individual. Sometimes there is a decided hysterical tendency. Sometimes the susceptibility is shown only by an introspective tendency and a disposition toward melancholy. As already stated, the mental disorder is of the nature of a mental shock and this is the more pronounced, the more acute the symptoms and when they follow immediately after the accident or injury. This shock may amount to sudden and complete confusion of mind or amentia, which may be of short duration or last for weeks and even months. In rare cases it may even be permanent, although much less likely to follow shock of a physical character or origin than that due to mental or moral causes. In the extremely susceptible, attacks of acute maniacal excitement, hysterical melancholia, or hypochondria may follow immediately after a very slight injury. In other cases the symptoms develop more slowly, but are always connected more or less directly with the injury. The symptoms in such cases are nearly always quite characteristic. There is first a moderate shock at the time of the injury, but not sufficient to show mental symptoms. Following this there is a marked tendency to concentrate the attention on the accident and to watch for injurious effects of it. The individual often becomes extremely nervous, has more or less insomnia, cannot fix his attention on his work, often has considerable digestive disturbance, the *ego* rises in importance in his mental operations, and there is more or less despondency and emotional depression. Often this disturbance takes the hypochondriacal form. When well-marked mental

disorder finally develops, it is usually more or less hysterical and hypochondriacal in character and is shown rather by disturbance of the emotions than by fixed delusions. Fleeting hallucinations may appear and in extreme cases there may be much confusion and lethargy in mental operations.

It will be noted from this description that many of the symptoms belong to the neuroses rather than the psychoses. The two are intermingled in nearly all cases, however, and even in the pure functional neuroses there is a psychic disturbance also. The relations of the *ego* to the environment are disturbed, the judgment is at fault, the emotions are more or less deranged and the mental strength is usually materially diminished.

In the great majority of such cases there is also the complication of a prospective damage suit. In some this is the principal cause of the disorder. I have known it to cause hysteria major, with violent convulsions, general anæsthesia and violent emotional outbursts. The settlement of the suit will nearly always favorably modify, if not entirely remove, the disturbance, and it is not necessary that there should be voluntary malingering. Often there is entire honesty on the part of the patient, but the influence of the concentration of the attention on certain subjects in a person of susceptible temperament is sufficient to produce great exaggeration of the symptoms and finally decided mental disorder.

RESULTS OF BRAIN SURGERY IN EPILEPSY AND CONGENITAL MENTAL DEFECT.[1]

By WILLIAM P. SPRATLING, M. D.,

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Since surgical intervention is practised in epilepsy for the possible relief of conditions of certain types, and in idiocy and imbecility for the possible relief of certain conditions of other types, we can readily divide the subject into two parts, taking up epilepsy first. The limit on time requires that both be treated in a greatly abridged form.

The Type of Epilepsy Proposed for Surgical Treatment should be Specified.

Used without qualification, the word "epilepsy" carries little meaning to the analytical student of the disease. So varied is its etiology, and so numerous are its types, that the synthetical designation of "epilepsy" only has but little value.

In some epilepsies medical treatment promises most; in others, surgical; and it is well to differentiate the cases of each at the outset, doing this broadly if not specifically, always reserving, however, specific distinctions before undertaking the surgical treatment of any particular case.

We may first lay down this general rule: The epilepsies that most seriously impair the conscious operations of the mind are less amenable to treatment by the surgeon than the epilepsies that leave the mind most largely unaffected.

[1] Read before the 59th Annual Meeting of the American Medico-Psychological Association, held in Washington, D. C., May 12-15, 1903.

There is a vast difference between fits of different types in the degree in which they affect the mind. Some blot it out in a flash, completely and instantaneously; others blot it out gradually; others impair it in various degrees without effecting its complete destruction at any time during the fit; while still others do not even disturb it in an appreciable degree, the latter being the case with the milder monospasms, Jacksonian in character.

This being true, we first single out the epilepsies that mostly affect the motor side of the body as promising most for surgical treatment, to the exclusion of those that invade the psychic side to the greatest degree.

We may illustrate this by saying that in grand-mal convulsions in which consciousness is destroyed through the intensity of the "explosive discharge" or through the sudden "snapping of restraint" in the motor zones, surgical measures are far more rational than when the attacks, being psychic, are silent in form, causing no commotion in the muscular system and no change in body posture.

Operations for the possible relief of epilepsy should be confined to cases in which the attacks are grand-mal or Jacksonian, and will seldom be found of any use in petit mal or psychic types.

This takes no account of partial, reflex, or other rudimentary forms of the disease, many of which are well adapted to surgical treatment, being due as they are to such causes as old cicatrices, an adherent prepuce, foreign growths in the nose, middle-ear disease, and other peripheral organic conditions, including recent injuries to the brain in which the early repair of the damage removes the cause of the attacks.

Results of Brain Surgery in 33 Cases of Epilepsy.

The types of epilepsy in which surgical intervention is oftenest a rational proceeding comprise the bulk of all the epilepsies. In 1325 cases that have come under my observation during the past eight years, 774 were grand-mal and 9 Jacksonian; together a little over 60 per cent of the gross number. We do not wish to be understood as claiming that 60 per cent or over are subjects for surgical treatment; we mean that there are 60 per cent only in which some cases will be found that surgery may benefit.

Before operating in any case, the patient should be carefully watched so that the exact order of invasion, the precise manner in which the fit begins, the manner in which it extends, involving one group of muscles, one part of the body after the other, should be carefully observed on repeated occasions, together with the nature, frequency and recurrence of the aura; for all these constitute valuable signs that help to guide us to the cerebral seat of the disease. The study of such symptoms to their full advantage demands a knowledge of cerebral localization we cannot, either as epileptologists or as surgeons, fail to acquire.

We can form, in a measure, some idea of the value of brain surgery in epilepsy by noting the results in the 33 cases presented at this time. All of them have been under my daily observation for periods varying from one to 8 years. Five of these operations were performed at the colony in cases selected with great care. The remaining 28 were operated on prior to their admission.

Case 1.—Male, aged 29 years. Family history negative. Epilepsy began at 17 years. Supposed to be caused by malaria. Trephined, October 1895, six years after the first seizure.
Result: No improvement.

Case 2.—Male, aged 31 years. Father tuberculous; otherwise family history negative. Epilepsy began at 13 years. Supposed to have been caused by trauma to head. Trephined in August, 1894. Right motor region. Operation 11 years after the onset of the epilepsy.
Result: No improvement.

Case 3.—Male, aged 22 years. Family history negative. Epilepsy began at 15 years. No assigned cause. Patient grew steadily worse and had as many as 24 attacks daily. Trephined in October, 1897, three years after the onset of the epilepsy. Since the operation the attacks have been less frequent, but more severe. Trephined again at the Craig Colony in April, 1900. His attacks had been growing steadily worse. A portion of thickened and adherent dura was removed. Since the last operation his attacks have been markedly lessened in frequency. On large doses of bromides ever since the operation.
Result: Great decrease in frequency and severity of attacks.

Case 4.—Male, aged 31 years. Mother's father insane and syphilitic. Mother's sister committed suicide. Brother and sis-

ter died in convulsions. Paternal relatives intemperate. Epilepsy began at age of 17 years. Supposed to be caused by an injury to the head when 7 years old. Trephined during 1895, eight years after the onset of the epilepsy.

Result: No improvement.

Case 5.—Male, aged 38 years. Maternal grandmother had epilepsy. Assigned cause of epilepsy, heredity. Trephined over the left motor region in 1893, fifteen years after the onset of the epilepsy.

Result: Slight temporary benefit.

Case 6.—Male, aged 8 years. Family history negative. Epilepsy began at 5 years. Supposed to have been due to a fall on the head. Two months after the fall he had the first attack. Attacks increased in frequency and at the age of 5 years he was having 50 attacks a day. Two years after the injury he was trephined over the right motor region. Since the operation he has had no attacks during the daytime.

Result: Decrease in number of attacks.

Case 7.—Male, aged 30 years. Mother rheumatic. Father inebriate and died of tuberculosis. Epilepsy began at 21 years. Assigned cause, injury to left side of the head. Was run over by a wagon. Two weeks later he had the first attack. Attacks at first 3 or 4 daily. One week after the first attack he was trephined. Since the operation his attacks have been about 20 each month.

Result: No improvement.

Case 8.—Male, aged 19 years. Family history negative. Epilepsy began at 11 years. Was struck on the head with a balestick and had a severe convulsion half an hour later. Second attack occurred one month later and then they occurred with increasing frequency. Trephined in 1896, three years after injury. No benefit as the result of the operation. In April, 1900, he was trephined again at the Craig Colony. This time the opening was made over the left parietal bone, as this was the side injured. (The first operation was performed on the right side). No adhesions nor gross pathological changes were exposed. He has about 4 grand-mal attacks each month at present.

Result: No improvement.

Case 9.—Male, aged 20 years. Family history negative. Epilepsy began at 7 years. Supposed to be due to an injury to his head, which occurred when he was 3 years old. Trephined in

February, 1899, 16 years after the injury which was the supposed cause of his epilepsy. Attacks at first were all psychic, but gradually have changed to grand-mal.

Result: No improvement.

Case 10.—Male, aged 20 years. Mother died of tuberculosis. Maternal grandmother and aunt died of tuberculosis. Epilepsy began at age of 12 years. Assigned cause, a penetrating wound of the skull caused by a nail when 8 years old. Four years after the injury he had the first attack. Trephined over the left parietal region in 1899. Trephined again at the Craig Colony in November, 1900, over the same area as at first operation. Thickened dura removed and gold foil inserted.

Result: No improvement.

Case 11.—Male, aged 36 years. Father inebriate. Maternal uncle and aunt insane. Mother and grandmother had heart disease. Epilepsy began at 34 years. Supposed to be due to trauma to head at the age of 23 years. Claims he had a fracture of the skull at that time. In July, 1898, he fell from a ladder and had a convulsion 12 hours later. Since then he has had attacks every 6 weeks. In September, 1899, he was trephined over the left frontal region at the Presbyterian Hospital, New York. Six weeks after the operation he had another attack. In March, 1901, he was placed on bromide treatment and during the six months since that time he has had no attacks.

Result: Temporary improvement, probably not due to operation.

Case 12.—R. J. Mc., male, aged 11 years. Mother neurotic. Maternal grandmother had 2 strokes of paralysis. Epilepsy began at 8 years. In January, 1898, he fell 8 feet from a shed and struck the right side of his head. Had a convulsion the same day he met with the accident. In April, 1900, over two years after the accident, he was trephined over the right side of the head at the seat of the injury.

Result: No improvement.

Case 13.—J. S., male, aged 31 years. Nothing known of family history. Epilepsy began at age of 19 years. Supposed to be caused by yellow fever, contracted while in Brazil in 1891, since shortly after this he had his first convulsion. In 1893 he was trephined over the right frontal region, 2 years after the onset of the epilepsy.

Result: No improvement; attacks more frequent after operation.

Case 14.—W. F. C., male, aged 20 years. Family history negative. Epilepsy began at age of 15 years. At age of 5 years he was pushed off a wagon and injured his spine. Had first attack one month after the injury. In 1897 he fell from an engine and remained unconscious for some time. In September, 1900, he was trephined, 4 years after the onset of the disease.

Result: No improvement.

Case 15.—E. K., male, aged 15 years. Family history negative. Epilepsy began at 6 years. Assigned cause, trauma. He was hit on the head with a shovel about one month before the first attack. Had attacks every 2 or 3 days. In January, 1901, he was trephined over the site of the injury. Operation 9 years after the injury. Since the operation the attacks have been more frequent and severe

Result: No improvement; disease exaggerated.

Case 16.—J. M. P., male, aged 19 years. Family history negative. At age of 6 years he was struck on the head by a train. Eight years after he had the first convulsion, and he has had them about every 10 days since. In January, 1900, he was trephined over the site of the injury. Operation 4 years after the onset of the disease. Attacks have been worse since the operation.

Result: No improvement; disease exaggerated.

Case 17.—Male, aged 29. Family history negative. Epilepsy began at age of 21 years. In October, 1893, he was thrown from a wagon and struck on the back of his head. Two years later he was trephined and following the operation he remained free from seizures for four months. In February, 1901, he was trephined again and more bone was removed. Has had severe pains in head since the last operation and the epilepsy is unimproved.

Result: No improvement.

Case 18.—N. W., female, aged 20 years. Family history negative. Epilepsy began at age of 13 years. Fifteen months prior to the first seizure she fell on the ice and struck on the right side of the skull. In November, 1894, she was trephined over the left parietal bone. During the five months following the operation she had no seizures. Attacks at present 4 or 5 per month.

Result: No permanent improvement; some temporary.

Case 19.—C. M. S., female, aged 27 years. Family history: paternal great-grandfather and grandfather insane. Two ma-

ternal aunts epileptic. Father inebriate. Maternal uncle died insane. Mother has been epileptic since 16 years of age. Patient's epilepsy began at the age of 11 years. Assigned cause, heredity. At the age of 20 years she was trephined over the motor region of the left side. Operation 9 years after the onset of the disease. Had no attacks for one year following the operation. Since that time the attacks have returned.

Result: No permanent improvement.

Case 20.—J. D. R., male, aged 38 years. Family history negative. Epilepsy began at 27 years. Assigned cause, injury to the head by being caught between two ice wagons. Eight years after the onset of the epilepsy he was trephined over the right Rolandic region.

Result: No improvement.

Case 21.—S. S. M., male, aged 22 years. Family history unknown, except that all (?) paternal relatives were intemperate. Epilepsy began at 11 years. Supposed to be due to injury to the head by a kick from a horse. He was trephined over the seat of the injury and the dura found thickened.

Result: No improvement.

Case 22.—Female, aged 8 years. Father intemperate. Epilepsy began at age of 2 years, following an infantile cerebral palsy which was the cause of her epilepsy. At the age of 4 years she was trephined. Skull very thick. Operation 2 years after the onset of the epilepsy.

Result: No improvement.

Case 23.—Female, aged 38 years. Family history unknown. Epilepsy began at the age of 8 years. At the age of 8 years she fell down stairs and was also injured by a runaway horse. She had spasms immediately following the latter accident and remained in an unconscious condition for 3 days. She was trephined over the left parietal bone 3 days after the injury. The convulsions continued with varying frequency until she was 13 years old, when she had immunity from them until 30 years of age. At the age of 30 years the spasms appeared again and she has had them at various times until April, 1900. During April, 1900, she was operated upon for a cystic uterus. The uterus was removed with the appendages. There was an imperforate cervix and the uterus had become a retention cyst. She made an uninterrupted recovery from the operation and since that time she has had no return of the convulsions.

Result: No attacks for 5 years; cure probable.

Case 24.—F. F., female, aged 9 years. Family history unknown. Epilepsy began at the age of 3 years. No assigned cause. At the age of 6 years she was trephined over the left parietal bone.

Result: No improvement.

Case 25.—A. S., letter carrier. G. M. Onset at 32. Multiple sclerosis. Trephined June, 1901; left parietal region (in Syracuse).

Result: No improvement.

Case 26.—S. V., aged 20. No occupation. Epilepsy of 6 years' duration. Has right hemiplegia. Jacksonian type. Trephined by Dr. Gerster at Mt. Sinai Hospital, Nov. 18, 1901; 2½ x 2½ inches of bone removed.

Result: No improvement.

Case 27.—G. D. B., 40. Laborer, married. Onset at 39. Family history negative. Cause (?) G. and P. M. attacks frequently. Right arm and leg most frequently affected. Trephined in Syracuse. Attacks occurred again 12 days after operation. Operation six months after injury to head caused by a falling stove pipe.

Result: No improvement.

Case 28.—W. B., 10. Family history negative. Epilepsy for 9 years. Right hemiplegia. G. M. attacks beginning in right face, right arm and leg. May 7, 1902, operated upon at Colony.

Result: No improvement in epilepsy.

Case 29.—J. A. S., 29. G. M. for 25 years, following typhoid. Paralysis of left arm. Trephined at Massachusetts General Hospital 7 years before admission.

Result: No improvement.

Case 30.—W. B., 16. Onset at 2 years. Cause unknown. P. and G. M. Attacks began in left hand, extending to left arm, face and head, then to left leg. Trephined June 7, 1902, at Colony. No marked pathological condition found at operation.

Result: No improvement.

Case 31.—J. O. P., admitted Sept. 12, 1902; aged 16. At age of 7 received a fracture of skull, and was afterwards trephined. Epilepsy developed 2 years after injury. G. M. No heredity; no paralysis; two or three attacks per month.

Result: No improvement.

Case 32.—C. E. E., aged 26. Admitted Feb. 24, 1903. Epilepsy for 14 years, following traumatism to head. G. M. Paralysis of right arm and leg and left side of face. Trephined in Syracuse in 1899. Seizures more frequent after operation.
Result: No improvement.

Case 33.—I. G., aged 21. Admitted April 29, 1903. Epilepsy of five years' duration. Cause, blow on head by pitchfork. G. M. No paralysis. Trephined over right motor area previous to admission. No definite history of the operation.
Result: No improvement; patient an imbecile.

20 out of the 33 cases cited above were due to trauma of the head. The average duration of the epilepsy before the operation was approximately 5½ years, being 16 years in one case and 3 days in another.

The results, noted in no case less than 11 months after the operation and in most of them several years after, were as follows:

In 21, no improvement in the disease, either temporary or permanent.

In 8, the attacks were lessened in frequency and severity, the operation being a part of the treatment only.

In 3, the disease was much worse after the operation.

In 1, apparent recovery; the patient in this case being a woman whose first convulsion had appeared after a severe head injury in her 8th year, caused by falling down stairs. She was trephined three days after the injury, while the convulsions continued five years longer, disappearing when she was 13, to recur at 30. Some years later, when she was admitted to the Craig Colony, her uterus, being a retention cyst, was removed with all appendages, the result now being no attacks since the operation, a period of five years. In this case, the operation on the brain did not relieve the convulsions, the relief being due to the removal of a cause that periodically produced a form of auto-intoxication. The retained menstrual discharge was a systemic poison.

28 of the 33 cases were males; 12 of these had good family histories, 10 had not, while in 6 the family history could not be ascertained.

Of the 5 women, 2 had good family histories, 2 had not, while one was unknown.

It is worthy of note that none died as the result of the operation. Similar treatment of idiocy is attended with a comparatively high rate of mortality—fully 20 per cent, as we shall see later.

CASES OPERATED ON AT THE CRAIG COLONY.

Seizure Records.

Case 1.—Operation, April, 1900.

	1900	1901
January	559	1
February	136	3
March	131	3
April	205	1
May	14	2
June	0	0
July	3	2
August	0	4
September	0	7
October	0	7
November	0	1
December	3	0
Total	1051	31

Case 2.—Operation, April, 1900.

	1900	1901
January	3	4
February	1	2
March	7	1
April	13	3
May	1	3
June	11	2
July	1	3
August	1	1
September	6	6
October	1	8
November	5	3
December	4	4
Total	54	40

Case 3.[2]—Operation, November 25, 1900.

	1900	1901
January	12	4
February	14	5

[2] Cases 1, 2, 3 reprinted from "Operative Interference in Epilepsy," by R. E. Doran, Albany Medical Annals, December, 1902.

March	31	6
April	13	2
May	19	3
June	16	6
July	0	4
August	0	11
September	5	14
October	13	10
November	2	12
December	0	9
Total	125	86

Case 4.—Operation, May 7, 1902.

	1902	1903
January		5
February		11
March		3
April	2	3
May	4	
June	2	
July	5	
August	1	
September	2	
October	2	
November	4	
December	0	

We have no accurate information regarding the seizures in Case 4 before admission and are unable to compare the number of attacks before operation with those occurring afterward.

Case 5.—Operation, June 7, 1902.

	1902	1903
January	10	25
February	13	13
March	208	75
April	5	2
May	6	
June	5	
July	13	
August	7	
September	2	
October	7	
November	10	
December	18	

(The large number of seizures in the last case in March, 1902, was due to status epilepticus.)

Concisely summed up, the results in the 5 cases operated on at the Colony were as follows:

Case 1.—During the 4 months preceding the operation there were 1031 attacks. During the 4 months following there were 17 only, while during the 20 months following the operation there were 51 attacks.

Case 2.—During the 4 months preceding the operation there were 24 attacks. During the 4 months following, 14; this ratio of decrease keeping about the same thereafter.

Case 3.—During 11 months preceding operation there were 125 attacks. During the 11 months following, 66.

Case 4.—Number of attacks before operation unknown. During the 12 months following there were 45.

Case 5.—During 5 months preceding operation there were 242; during the 5 months following 54; during the 10 months following there were 193.

It will thus be seen that absolute cure did not result in any case, while improvements followed in one out of four—25 per cent. It should be stated that the five cases detailed were all re-operations, the first operation having been performed before the patient entered the Colony. It should also be stated that all of the apparent improvements could not be laid to the results of surgery, for all of the cases were kept rigorously under a definite general treatment, especially under the suppressive effects of the bromides.

The marked improvement in Case 1 was attributed as much to the after treatment as to the operation itself. The importance of doing this is clearly pointed out by Roswell Park in the following statement:[1]

"Operation, when indicated and undertaken, should be regarded as a first measure to be followed, and often preceded, by others looking to a correction of all faults of diet, elimination, etc. Long continued attention to these matters is the price of success."

This has long been our doctrine, and how true it is can only be appreciated by those who have watched through many years

[1] The Surgical Treatment of Epilepsy, American Medicine, Vol. IV, No. 21, 1902.

a large number of cases subjected to the knife, the chisel and the saw. Surgeons, as well as neurologists, are apt to advise operation in non-traumatic cases presenting distinct localizing phenomena. In many cases of this kind operation will prove useless, from the fact that while *diffuse cortical conditions* (three words I would like to emphasize), productive of epilepsy, may have a central point of greatest initial discharge, the area is too diffuse by far for the knife to remove.

Roswell Park[4] credits Matthiolus with collecting 258 cases of Jacksonian epilepsy subjects of craniotomy, the results being, "some 20 per cent were reported as cured, though only 10 of the entire number had been followed for over three years, and only 18 of them for over a year. Of the others, 15 per cent were reported improved, while in 65 per cent there was no improvement; 13 per cent died."

Braun collected 30 cases due to trauma, in which Horsley's plan of excision of the affected cortical area was carried out; 13 of the patients being reported as recovered; 9 improved, and 8 unimproved. Of the 13 reported as recovered only 3 were followed for 3 years, a fact that must vitiate any claim so striking as this one appears to be.

Kocher regards the methods of electrically locating the area to be excised, in the manner advised by Horsley, not sufficiently accurate to always reach the seat of the disease.

Broca and Manbrac credit Ferrier with reporting a total of 21 cases of partial epilepsy operated on, with 12 recoveries, 6 ameliorations, and 3 negative results, adding: "It must be remembered that such observations are often published before 6 months have elapsed." They hold that recoveries are not rare, and that the relief of headache and attenuation of the severity of the attack, which mean a great deal, are at times attained.

In 1893 Starr reported 13 cases operated on, with 3 cures; but three years later admitted that the cases reported as cured were reported too early.

Gowers believes that trephining in idiopathic epilepsy is never justifiable.

It is unfortunate, on the whole, that so little help can be gained

[4] Op. Cit.

from statistics; not that they are essentially unreliable, but because the view-point of those who make them is often so widely different.

There is also often failure to specify the type of epilepsy in which the operation is done, the comparison of statistics being consequently impaired. Another thing that creates confusion is the lack of any rule or uniformity in the length of time that should elapse before results are announced. Bergmann rather caustically remarks that this is sometimes done "before the wound heals."

It is difficult to fix a time limit in this respect. Such limit, in our opinion, should be regulated in a measure by the type of epilepsy operated on—the cause likewise being considered. As a general rule, it should not be less than two to three years in any case, while in all cases possible observations should be kept up after that. If we accept two, or even three, years as the period that should elapse after the operation before results are reported, the ratio of recoveries from epilepsy under brain surgery will be disappointingly small.

Results of Brain Surgery in Idiocy and Imbecility.

The picture of success following brain surgery in epilepsy just presented was not bright.

In idiocy and imbecility, under the light of increasing time, its hue is more sombre still; so disappointing is it in color, in fact, that we feel a strong inclination to turn from it, saying: "There is nothing in it that brings any gratification; we do not want it, nor are we disposed to help in its creation."

Craniotomy, linear and "à lambeaux," was introduced by Lannelongue, who published 25 cases in 1891 in which he claimed results, not only so far as recovery from the operation was concerned, but also as to mental improvement in a remarkably short time, so striking and so novel that, to use Jacobi's words, "Physicians began to hope, surgeons to glory, and the idiotic children"—he significantly adds—"let us see."

Nothing finer or more exhaustive on the subject, from the standpoint of the incredulous, if not of the positive opponent, has appeared in medical literature to our knowledge since Jacobi's masterly address, "Non Nocere," delivered before the 11th International Medical Congress in Rome in April, 1894.

The essence of that address, so true then, is none the less true now; the pathology of mental deficiency has not changed, nor have we in all these years elevated the cause of craniotomy in the treatment of idiocy in any degree.

The "furor operandi" so generally acclaimed ten years ago has largely passed away, but it may return at any time, when the great principles that underlie "Non Nocere" in this particular field of medical work will await a wide application.

"What," asks Jacobi, "are the underlying conditions of idiocy?" In the main, as shown by the results of the autopsies, they are as follows: "Chronic encephalitis, diffuse or circumscribed; diffuse (syphilitic) disease of the blood vessels; arrest of vascular development in the cortex; inequality in the hemispheres; inequality in the peripheral cortical layer on the two sides; defect of the third frontal convolution and the island of Reil; meningo-encephalitis, with thickening and adherence of the pia and brain, such as may occur after forceps or trauma; kephalo-hæmatoma internum, spontaneous hemorrhages; embolism from heart disease; thrombosis from cholera infantum, followed by destruction of cerebral cells and atrophy of the cortex."

Starr found the last condition in 21 cases out of 343. In the same cases in 32 instances he also found maldevelopment and apparent atrophic conditions of the brain structure of the hemispheres, chiefly cortical, the cells resembling those of a new-born child, but with no apparent gross defects in the brain; atrophic and hypertrophic sclerosis, congenital or post-natal, in 97; atrophy by softening produced by embolism or thrombosis, and limited to certain arterial districts, in 23; arrest of development, such as porencephaly, in 132; cysts which produced atrophy by pressure or were associated with the atrophy due to the original lesion, in 14; hemorrhages which were discernible by the remains of a clot, or by the blood-staining of a cyst, of the pia, or of sclerotic tissue, in 18.

In addition to all these causes of idiocy, there remain to be mentioned hydrocephalus, microcephalus and premature ossification of the fontanelles and sutures.

These, in the main, are the pathological conditions in the brain that surgical intervention seeks to remove or modify for the relief of idiocy and imbecility, and while it would be of the greatest

interest to look deeper into the relative frequency, degree and kinds of the different causes and pathological states, we must, perforce, for lack of time pass on to what surgery—never more brilliant or wondrous in the world's history than it is to-day—has been able or unable to accomplish in the way of relief.

While the literature is replete with histories of individual cases, that teach valuable lessons, I am able to present 194 such cases under two heads in condensed form; the first group including the more immediate results in 111 cases; the second, results somewhat more permanent in 83 cases.

TABLE I, 111 CASES.[5]

Case 1.—Microcephalus, imbecility from early synostosis in a child. Left craniectomy. Death 24 hours after operation. (Lane; Journal of Am. Ass., Jan., 1892.)

Case 2.—Girl, 4 years, microcephalus, craniectomy in two sittings. Results excellent. Marked improvement of general condition. (Lannelongue; Gaz. hebdom., 1890.)

Cases 3-26.—24 cases. 13 boys, 11 girls. Microcephalics and idiots, young subjects, showing (with or without epileptiform crises), motor or psychic troubles. Operation for the most part "Kraniektomie à lambeaux." Dura opened in one case. Three died after operation. In a very large number of cases mental improvement; also in regard to the gait. (Lannelongue; Gaz. des hôp. 1891, Congrès franç. de chir., 1891.)

Cases 27-30.—First case, craniectomy. Improvement, but a second operation was without results. Second case, 19-month girl. Idiocy. Premature suture synostosis. Failure of fontanelles. Craniectomy on both sides. After three months, improvement, distinct, if not satisfactory. Third case, 16-month boy. Microcephalic idiot. Synostoses of suture and fontanelles, convulsions. Craniectomy. Death immediately after operation. Fourth case, 4½-year girl. Microcephalic idiot. Failure of fontanelles, convulsions, craniectomy. Death immediately after operation. (W. Keen; Amer. Jour. Med. Sciences, 1891.)

Case 31.—Girl, 3½ years. Microcephalic idiot, epilepsy. Pre-

[5] Both tables are made up from the results noted by Lowenstein, in references given.

mature synostosis of sutures and fontanelles. Left parietal bone lapped over right. Left arm paralyzed. Left craniectomy. Brilliant results 3½ months after operation. Epilepsy disappeared. Arm useful. (Ranschoff; Medical News, 1891.)

Cases 32-34.—Three cases. Only in one exact history; 6-year boy. Microcephalus. Idiot. Synostosis. Convulsions. No trace of intelligence. Craniectomy. Excellent results. In the other two cases good results. (Wyeth; Med. Record, 1891, and Gaz. hebdom., 1891.)

Case 35.—2½-year boy. Microcephalic and idiotic. Could not walk, stand or speak. Epilepsy. Left craniectomy. Eight weeks after operation, improvement. Epilepsy disappeared. (Will. Morrison; Med. Rec., 1891.)

Cases 36-37.—3-year boy. Microcephalic and idiotic. Craniectomy. Improvement in ten days.

7-year boy; microcephalic and idiotic. Craniectomy with incision over the speech center. Death after operation. (V. Horsley; Brit. M. J., 1891.)

Case 38.—8-month boy. Microcephalic; idiotic; blind both sides. Left craniectomy. Sight improved. Great improvement. (Miller R. Shalders; Ibid., 1892.)

Cases 39-45.—(1) 3½-year boy. Microcephalic; idiotic; epilepsy. Right craniectomy. Improvement.

(2) 4-year boy. Microcephalic and idiotic; epilepsy. Left craniectomy. Result, negative.

(3) 18-year boy. Microcephalic; idiotic; epilepsy. Craniectomy. Death.

(4) 15-year boy. Same symptoms as above. Craniectomy. Death in 26 hours.

(5) 9-year boy. Microcephalic; idiotic; epilepsy. Craniectomy. Improvement.

(6) Symptoms in 12-year girl as in 5. Right craniectomy. Result, negative.

(7) 14-month child. Microcephalic; idiotic. Left craniectomy. Death, soon.

Case 46.—3-year child. Did not walk, sit or speak. Salivation. Right craniectomy. Improvement. (M. Gould; Med. News, 1891.)

Case 47.—4½-year boy. Microcephalic and idiotic. Epi-

lepsy. Craniectomy on right side. Improvement. The author is not absolutely satisfied with this improvement. (Clayton Parkhill; Ibid., 1892.)

Case 48.—9 years; microcephalic and idiotic. Like 3-year child. Right craniectomy. Improvement. After two years grew much worse. Died in 1893. (Preugrueber; Gaz. hebdom., 1892.)

Cases 49-50.—4-year girl. Microcephalic; idiotic; craniectomy both sides. Improvement.

11½-year boy. Microcephalic and idiotic. Left craniectomy. Improvement. (Chenieux; Ibid.)

Case 51.—3-year boy. Microcephalic. Slight improvement in seven months. (Largeau; Ibid. und Congrès. franç. de Chirurg., 1892.)

Case 52.—Eight months; microcephalic; craniectomy. After operation, deterioration, then slight improvement. (Gersuny; Gaz. hebdom., 1893.)

Case 53.—Microcephalic and idiotic. Temporary craniectomy. Improvement. (Jonnesco; Ibid., 1898.)

Case 54.—16 months; microcephalic and idiotic. Craniectomy both sides. Improvement, but death after five days. (Griffiths; Ibid.)

Case 55.—19 months; microcephalic and idiotic. Craniectomy. Result, negative. (Boyd; Ibid.)

Case 56.—8 years; microcephalic; epilepsy. Left craniectomy. Improvement. (Auger; Congrès franç. de Chirurg., 1891.)

Cases 57-58.—4 years; microcephalic and idiotic. Craniectomy. Result, negative.

2-year boy; microcephalic and idiotic; epilepsy. Craniectomy. Death 21 hours after operation. (Mannoury; Ibid.)

Case 59.—8-month girl. Microcephalic and idiotic. Craniectomy. Improvement at first. Five weeks after operation again the old condition. Death shortly after. (Heurteaux; Ibid.)

Case 60.—3¾-year girl. Microcephalic and idiotic. Craniectomy on both sides. More intelligent expression. (MacClintock; Centralbl. f. Chir., 1892.)

Case 61.—11-month boy. Microcephalic. Craniectomy, left. Improvement. Operation should be repeated. (E. Kurz; Ibid., 1893.)

Case 62.—Microcephalic child. Craniectomy. No result reported. (Postempsky; Ibid.)

Cases 63-64.—1⅓-year; microcephalic boy. Craniectomy, both sides. No result after one year.

2½-year; microcephalic girl. Craniectomy, both sides. Death 8½ weeks after operation, unimproved. (Tillmanns; Ibid., 1894.)

Case 65.—14-year boy; idiot. Right craniectomy. Seven trephine buttons removed. Improvement. (A. Szpanbock; Ibid., 1895.)

Cases 66-77.—12 cases; microcephalic and idiotic. Ages 2½ to 8½ years. Linear craniectomy. 3 improvements; 5 negative results; 1 doubtful; 3 deaths. (C. L. Dana; Ibid., 1897.)

Case 78.—3½-year boy; microcephalic and congenital occipital meningoceles. Idiocy. Craniectomy left and right, and extirpation of the meningoceles. 2½ years after operation physical and mental improvement. (Parona; Jahresbericht f. Chir., 1895; and Contributo alla Chirur. Cerebrale e spinale.)

Cases 79-90.—9 operated cases. The majority, craniectomies 2 improvements. (Oed & Cotterall; Ibid.)

Cases 91-92.—1, after a year, no improvement; 1 died. (Isuardi; Ibid.)

Case 93.—9-month child; microcephalic and idiot. Craniectomy both sides. Result, negative. Death after 2 years. (Bourneville; Lombard & Pillier; Ibid., 1896.)

Case 94.—8-year girl. Idiot. Craniectomy. Improvement. (Recasens; Ibid.)

Case 95.—5-year idiot. Craniectomy. Result, doubtful. (Lilanus; Ibid.)

Cases 96-102.—7 cases of microcephalus and idiocy. Craniectomy. In all seven cases, result negative. (Blank; Ibid., 1895.)

Case 103.—3¾-year boy. Microcephalus and idiocy. Craniectomy both sides. Improvement. (Joos; Corresp.-bl. f. Schweizer Aerzte, 1893.)

Case 104.—14-month girl. Microcephalus. Craniectomy, circular. Improvement. (Dumont; Ibid.)

Case 105.—12-year child. Microcephalus. Craniectomy, both

sides. A little improvement. (Schede; Deutsche Med. Wchnschr., 1895.)

Cases 106-107.—15-year girl. Idiocy. Microcephalus. Left craniectomy. First improvement, then old condition. Result, negative.

2-year boy. Microcephalus and idiocy. Craniectomy, left and right. Death seven days after operation. (Beck; Prager Med. Wchnschr., 1894.)

Case 108.—2-year boy. Microcephalus and idiocy. Craniectomy, both sides in two sittings. Improvement. Half a year after operation no progress. No improvement after second operation. After eight weeks a slow improvement noted by the mother. (Akermann; Volkmann's Sammlung Klin. Vorträge, 1890-94, Nr. 90.)

Cases 109-110.—(1) 6-year boy. Microcephalic and idiotic. (2) microcephalic and idiotic. Left craniectomy. Both children neater. (Rabow & Ronx; Therap. Monatshefte, 1891.)

Case 111.—Girl. Microcephalic and idiotic. Epilepsy. Craniectomy both sides. Result, negative. (Starr; 1894.)

Summary of Results in 111 *Children Operated on.*

19, or 17%, died in consequence of operation or soon after.

25, or 22.5%, were operated upon with no result.

10, or 9%, were operated upon with slight result, but not satisfactory.

24, or 21.5%, were improved in stated ways.

30, or 27%, improvement without reports as to its character.

3, or 3%, with no reports as to the results given in general.

TABLE II, 83 CASES.

Cases 1-4.—3 boys; 1 girl. Ages 3, 5, 7, 9 years. All were microcephalic and idiots. 2 were epileptics. Linear craniectomy. 2 died after operation. Old hemorrhage of brain. One disappeared after the first improvement. One was improved. (Parkhill; Denver, June 19, 1899.)

Cases 5-26.—22 cases, in age from 14 months to 8 years. All were idiots and microcephalic. Linear craniectomy. The results were such that Lamphear since 1896 has not done the operation

in general. Some died within a few years after the operation. (Manoury; Chartres, Juin 10, 1899.)

Cases 27-41.—15 cases of craniectomy. 5 died immediately after the operation. 1 died after having become maniacal a short time after the operation. 6 showed absolutely no result. 3 were only quieter after the operation. (Roswell Park; Buffalo, June 22, 1899.)

Cases 42-45.—See other table (27-30). 2 died immediately after the operation. 2 showed practically negative results. Keen from his results became opposed to the operation. (W. Keen; Z. Lt. Hamburg, June 30, 1899.)

Case 46.—See 38 in last table. Died four years after operation. At first improvement; then 2 years after operation return to old condition. (Miller R. Shalders; London, June 15, 1899.)

Case 47.—See case 81 in last letter. This writer says: "The operation of Lannelongue has given no result; no one of my acquaintance practises it in France." Hemicraniectomy. Result nil. (Doyen; Rheims, Juin 19, 1899.)

Cases 48-49.—4-year girl. 2-year boy. Microcephalic and idiotic. Craniectomy. 1 died immediately after operation. I showed improvement in the first 2 or 3 months after operation. 5 months later the old condition returned permanently. (Mannoury; Chartres, Juin 10, 1899.)

Cases 50-52.—11-year child. Microcephalic. 13-year boy. Microcephalic, idiot and epileptic. 4½-year boy. Microcephalic; idiot; spasms. Craniectomy, both sides. At first, results. Then "The patients remain idiotic and epileptic and have only temporary ameliorations for 1 or 1½ months. (Jaboulay; Lyon, Juin 14, 1899.)

Case 53.—Case 61 of first table. At first improvement. Then patient grew worse and died in 1897. (E. Kurz; Florenz, Juni 16, 1899.)

Cases 54-75.—22 cases of microcephalus, idiocy and epilepsy in children not over 5 years. (66-77 in first table.) Craniectomy of various kinds. 5 died. 14 were operated upon without results. 3 were improved. (C. L. Dana; N. Y., Sept. 18, 1899.)

Case 76.—Result, nil. Child died 1½ years after operation.

The whole left hemisphere showed cystic degeneration. (Gersuny; Wien; Juni 25, 1899.)

Cases 77-78.—1 (Dumont, 104, Table 1). Epilepsy remained till death, 1896. (Operation, 1893.) 2 (Joos & Walder, 103, Table 1). After 2 years the results disappeared and the patient was in a sad state. (Dosseker; Corresp.-bl. f. Schweizer Aerzte, 1899.)

Case 79.—Idiocy. Craniectomy, both sides. No change after operation. After five years the old animal condition. (Czerny.)

Cases 80-82.—3 cases. 2 girls; 1 boy. Ages 6, 7, 11 years. Idiocy; 1 with microcephalus. Circular craniectomy. 2, much quieter, one died after some years an idiot. (Dumont; Bern., Oct. 21, 1899.)

Case 83.—3½-year girl. Microcephalic and idiot. Epilepsy. Craniectomy. At first improvement, then deterioration. The child became insane and died in this condition in 1900. (Perry; Kolombo, Sept. 20, 1899, together with letter of Jonathan Bird Kandy, July 10, 1899.)

Summary of Results in the 83 *more Permanent Cases.*

20, or 24%, died.

54, or 65%, unimproved.

9, or 10½%, improved.

74 out of 83 received no benefit. The 9 who were improved showed it mostly in being quieter. This was the result in a case of restless imbecility and epilepsy operated on at the Colony; mental deterioration after the operation being rapid. The sudden lull in purposeless activity that follows the operation in some cases must not be mistaken for gain in mental powers. The opposite is generally the rule.

Note the results in Roswell Park's 15 cases. Five died immediately after the operation; one died after having become maniacal a short time after it; 6 showed absolutely no improvement; while 3 only were quieter. Also the results obtained by Lamphear in 22 cases, ranging in age from 14 months to 8 years, all microcephalic idiots, the results being such that since 1896 Lamphear has not performed the operation. Doyen says, "The operation of Lannelongue has given no results; no one of my acquaintance practises it in France."

Dana's 22 cases turned out as follows: 5 died; in 14 there were no results; while 3 were improved; none being over five years of age, all having idiocy and epilepsy.

Wilson states that since Fuller, of Montreal, trephined an idiot's skull, in 1878, to improve the mental condition, and Lannelongue, of Paris, did linear craniectomy on microcephalic idiots with the same object, craniectomy has been done a number of times with varying success. Some think with Lannelongue that the premature ossification of the skull is the cause of the microcephalus and deficient brain development, and justify the operation on the theory that after it the imperfectly formed brain improves its function and takes a greater amount of nourishment.

"With the hypothesis," says Lowenstein, "of the primary synostosis of the sutures and fontanelles and the secondary hindrance of brain development, stands or falls the right of Lannelongue's operation. The hypothesis is false and therefore the operation is not a suitable one. Death or no result follows."

Keen says that no good can possibly come from operation on an idiot with a skull of average size, in extreme microcephalus, or in a patient over seven years of age, and concludes that in some few cases of moderate microcephalus craniectomy is justifiable; that slight improvement will follow in a small number of cases, but in the majority there will be no change. He places the mortality at from 15 to 20 per cent.

Dana holds that craniectomy is justifiable in a selected class of cases. He believes that the clinical reports show improvement too often for the facts to be ignored. He thinks the operation is indicated in simple lack of development rather than where extensive lesions exist.

Jacobi gives 41 operations on 33 cases with 14 deaths, and of the 19 recoveries from the operation there was slight improvement in 8 and considerable improvement in 2, and says:

"It appears that in the face of so many deaths and so few results, the operation is not promising to mankind.

The operations thus far performed do not effect what they were intended for; they do not even enlarge the cavity. . . . If any cases be at all amenable to treatment by such operations,

they must be those of incomplete premature ossification of the sutures and fontanelles."

Goethe once said that, "The most interesting book that could be written would be a treatise on the errors of mankind;" and Jacobi adds, "Let us see to it that our mistakes do not swell that book."

Carl Beck concludes that craniectomy is justifiable and apt to be successful in microcephalus with idiocy. Acquired and late forms give a better prognosis than the congenital forms, while the dangers of the operation, he says, are not very great.

Norbury is of the opinion that the basis of much cerebral surgery in mentally defective states has been grossly theoretical. "Especially," he goes on to say, "does this apply to operations for the relief of microcephalus."

Operation from a pathological standpoint is utterly hopeless. Synostosis is not necessarily indicative of arrested mental development, and it is not a factor in producing microcephalus.

Broca has modified Virchow's views by saying it is a result and not a cause of microcephalus. Lannelongue now accepts the same view, but believes that as the brain is capable of development until past the 8th year, the operation is justifiable as a stimulant to brain growth.

Idiocy is "a vice of the entire organism," and the improvement of the mental condition depends upon the improvement of the entire physical system. This cannot be done by the assistance of surgical means, for brain-growth is not dependent upon stimulus from such a source, but from true physiological education—the training of the bodily powers—without which no mental improvement can be expected.

The marked improvement noted in the few cases which have survived the operation of linear craniectomy is not to be wondered at, as all interested in the case have sought by every means to improve the child, and it must respond to a certain extent.

On the whole, Norbury is vastly in favor of educational in contradistinction to surgical measures for the improvement of the mental condition of the feeble-minded.

Bourneville, in reviewing in detail the histories of 13 original cases, concludes: "It is, then, the medico-pedagogical treatment

to which we must turn and upon which we must depend. This is for the amelioration, and even the cure, of a notable portion of children afflicted with the divers forms of idiocy."

Pelliet states that the pathological anatomy of the brains of idiots confirms the opinion expressed by Bourneville. It is not difficult to formulate conclusions on the results to be expected from surgery of the brain done for the possible relief of epilepsy and congenital mental defect.

If the epilepsy is general and of some years duration, we need scarcely expect a cure, though in selected cases operations may ameliorate the symptoms to a marked extent—temporary amelioration being oftener obtained than that which is permanent.

If the epilepsy is unessential, reflex, rudimentary in type, or of short duration, and the operation removes the cause early enough, we may expect the convulsions to cease in many cases, provided the patient is free from the vices of heredity that are always beyond the reach of the knife.

We fail to find a single case of congenital mental defect in which a normal mental status was established through surgical intervention. We find many reports of cases benefited—the degree not being given—so that it is extremely difficult to judge of specific results in any case.

The fact that such operations are so few, as compared to what they were ten years ago, is the strongest argument against their utility in the great majority of cases. Surgical interference may still be used in isolated cases of idiocy, but it seems clear that it is slowly finding its position in rational treatment along a plane far lower than seemed possible at the time of its inauguration.

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they must be those of incomplete premature ossification of the sutures and fontanelles."

Goethe once said that, "The most interesting book that could be written would be a treatise on the errors of mankind;" and Jacobi adds, "Let us see to it that our mistakes do not swell that book."

Carl Beck concludes that craniectomy is justifiable and apt to be successful in microcephalus with idiocy. Acquired and late forms give a better prognosis than the congenital forms, while the dangers of the operation, he says, are not very great.

Norbury is of the opinion that the basis of much cerebral surgery in mentally defective states has been grossly theoretical. "Especially," he goes on to say, "does this apply to operations for the relief of microcephalus."

Operation from a pathological standpoint is utterly hopeless. Synostosis is not necessarily indicative of arrested mental development, and it is not a factor in producing microcephalus.

Broca has modified Virchow's views by saying it is a result and not a cause of microcephalus. Lannelongue now accepts the same view, but believes that as the brain is capable of development until past the 8th year, the operation is justifiable as a stimulant to brain growth.

Idiocy is "a vice of the entire organism," and the improvement of the mental condition depends upon the improvement of the entire physical system. This cannot be done by the assistance of surgical means, for brain-growth is not dependent upon stimulus from such a source, but from true physiological education—the training of the bodily powers—without which no mental improvement can be expected.

The marked improvement noted in the few cases which have survived the operation of linear craniectomy is not to be wondered at, as all interested in the case have sought by every means to improve the child, and it must respond to a certain extent.

On the whole, Norbury is vastly in favor of educational in contradistinction to surgical measures for the improvement of the mental condition of the feeble-minded.

Bourneville, in reviewing in detail the histories of 13 original cases, concludes: "It is, then, the medico-pedagogical treatment

to which we must turn and upon which we must depend. This is for the amelioration, and even the cure, of a notable portion of children afflicted with the divers forms of idiocy."

Pelliet states that the pathological anatomy of the brains of idiots confirms the opinion expressed by Bourneville. It is not difficult to formulate conclusions on the results to be expected from surgery of the brain done for the possible relief of epilepsy and congenital mental defect.

If the epilepsy is general and of some years duration, we need scarcely expect a cure, though in selected cases operations may ameliorate the symptoms to a marked extent—temporary amelioration being oftener obtained than that which is permanent.

If the epilepsy is unessential, reflex, rudimentary in type, or of short duration, and the operation removes the cause early enough, we may expect the convulsions to cease in many cases, provided the patient is free from the vices of heredity that are always beyond the reach of the knife.

We fail to find a single case of congenital mental defect in which a normal mental status was established through surgical intervention. We find many reports of cases benefited—the degree not being given—so that it is extremely difficult to judge of specific results in any case.

The fact that such operations are so few, as compared to what they were ten years ago, is the strongest argument against their utility in the great majority of cases. Surgical interference may still be used in isolated cases of idiocy, but it seems clear that it is slowly finding its position in rational treatment along a plane far lower than seemed possible at the time of its inauguration.

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ADDITIONAL NOTES UPON TENT TREATMENT FOR THE INSANE AT THE MANHATTAN STATE HOSPITAL, EAST.[1]

By DRS. A. B. WRIGHT and C. FLOYD HAVILAND.

A brief résumé of the tent treatment for special classes of insane, for the past year, as carried on at the Manhattan State Hospital, East, Ward's Island, New York City, under the direction of Dr. A. E. Macdonald, Superintendent, shows the most encouraging results.

Established in June, 1901, primarily for the treatment of the tuberculous insane, the system has been extended, so that now not only the above patients, but the demented, uncleanly and convalescent patients receive the benefit of continuous out-door life.

The camp for the tuberculous patients has been enlarged and a separate tent provided for the accommodation of the more active cases and those suffering from mixed infections, thus affording a secondary isolation from those in whom the disease is less active, the former class of patients being all confined to bed and in no case being allowed to come in contact with the remainder of the camp patients.

In general, the isolation of the tuberculous patients has been made more complete, as under no circumstances are they permitted to mingle with non-tuberculous patients. And this enforced isolation is bearing fruit in the lessened number of phthisical cases diagnosed in the wards of the hospital, despite constant care to discover all such in their incipiency.

Having succeeded in continuing one large tent of twenty beds in use during the winter of 1901-1902, it was determined to carry on the phthisical camp in its entirety during the past winter, and the same successful results have characterized this

[1] Read before the 59th Annual Meeting of the American Medico-Psychological Association, Washington, D. C., May 12-15, 1903.

effort as marked the camp treatment during the summer months. The two large tents, each with a capacity of twenty beds which are used, were removed to a sheltered portion of the hospital grounds, as was a third tent of the same size, which was erected adjacent to the other tents, but which contained no beds, it being partitioned by screens into a dining-room and living-room for such patients as were not confined to bed. For it was found that only the large tents could successfully withstand the severe weather of the winter months, and by this new arrangement we were able to dispense with the small auxiliary tents that are employed during the summer as dining-tents, living-tents, etc. Large coal-stoves provided ample heating facilities in the most severe weather, but a high temperature within the tents was avoided, inasmuch as the cool air has, in this treatment, appeared to exert a decided therapeutic effect of its own. The large living-tent was left somewhat cooler than the tents in which the beds were placed, so that the walking patients in going in and out of doors would not be compelled to experience too sudden changes of temperature. And notwithstanding this constant exposure not a case of ordinary cold or pneumonia developed during the entire winter. It is thus seen that no adverse results occur, even under unfavorable climatic conditions such as those to which our patients were necessarily subjected, provided the patient lives a constant out-door life. And the success which will be shown to have justified the continuance and extension of the camp treatment at the Manhattan State Hospital, East, also demonstrates that a high, dry altitude is not absolutely essential for the successful treatment of pulmonary tuberculosis. The camp for such patients is situated but sixty feet above tide-water, which fact in itself does not prove so disastrous as do the strong sea winds here encountered. To combat their evil effect the situation of the tents is selected with a view to the greatest possible shelter, and a high board-fence along one side breaks the force of the most frequent winds.

During the past year, 84 phthisical patients received the camp treatment, among whom 23 deaths occurred. Four of the latter number, however, died from intercurrent diseases, one from status epilepticus, one from hepatic cirrhosis, one from acute enteritis and one from tubercular enteritis. With but one exception these four patients had previously been improving until

MANHATTAN STATE HOSPITAL, EAST—CAMP A—TUBERCULOUS PATIENTS—WINTER LOCATION.

the secondary disease developed, and in none was the pulmonary tuberculosis a direct cause of death.

Excluding these four cases and comparing the nineteen deaths resulting directly from pulmonary tuberculosis with the total number of deaths occurring in the hospital during this time, it is found that but 8 per cent of our deaths were due to this disease, the lowest percentage in the history of the hospital and a decrease from 8.8 per cent of such deaths occurring during the previous year—the first year of the camp treatment—which percentage was at that time the lowest the hospital had ever experienced.

Of the 19 phthisical patients who died all were in an advanced stage of the disease when admitted to the camp, having an average weight of but 109 lbs. On admission four weighed less than 100 lbs., and one had a weight of but 73 lbs. With but one exception these patients all showed a progressive loss in weight until their death; one patient, however, remained in practically a stationary conditon, having gained one pound in weight, when he suddenly became maniacal and so remained for several days, until death occurred. The average camp residence of these patients was but one month and 29 days, the longest being 5 months and 8 days, the shortest but seven days.

Among the 84 patients treated, one has been discharged free from any symptoms of an active phthisical process and recovered from the acute melancholia from which he also suffered, while it has been possible to send 13 patients into the wards, with the disease apparently arrested. In but two of the latter cases was it found necessary to return them to the camp, the disease having again become active after an indoor residence of two and four months, respectively. In one of these patients tubercular peritonitis developed, but after being in a critical conditon for some weeks he is again beginning to improve and the peritonitis is subsiding. But the 12 patients in whom the disease has not reappeared give 14.28 per cent of the patients treated, in whom it is apparently permanently arrested.

It may be stated that the changes in weight in pulmonary tuberculosis indicate accurately the general condition of the patient.

Excluding the patients who died, and thus considering only the remaining 61 treated during the past year, the following results are obtained as regards weights upon the beginning and

close of camp treatment, or in the case of those still in the camp, up to the present time:

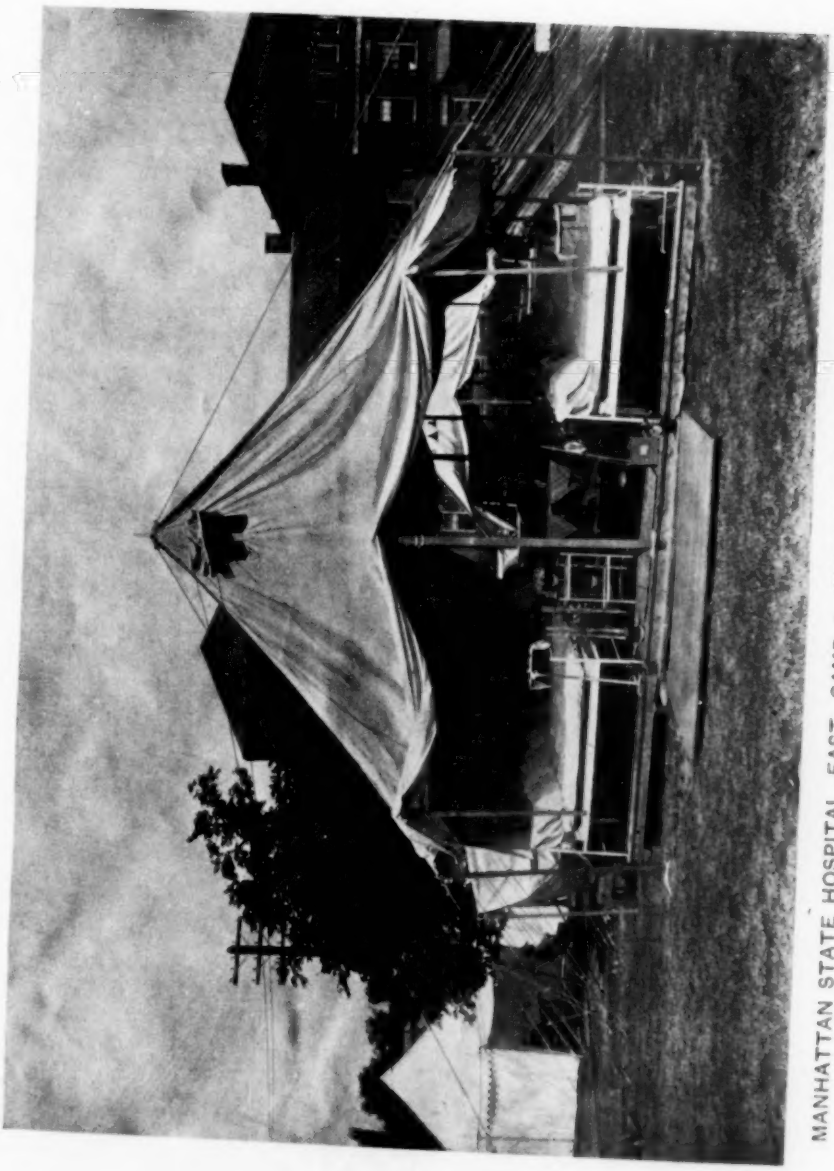
7 patients lost weight.
53 patients gained weight.
1 patient remained unchanged.
Greatest loss, 15.5 lbs.
Smallest loss, 1 lb.
Average loss, 6.57 lbs.
Greatest gain, 45 lbs.
Smallest gain, 3 lbs.
Average gain, 15.56 lbs.

These statistics show a decided improvement over those of the preceding year, due no doubt to perfected personal hygiene. Of the 12 patients who were discharged from the camp in whom the disease remains in abeyance the gain in weight ranged from 17 lbs. to 45 lbs. One remarkable case upon admission to the camp was in a critical condition, weighing but 83 lbs., and life was only sustained by free stimulation. He began to improve, however, now weighs 121 lbs., and is gaining daily.

Of these 61 patients considered in the above statistics 23 cases were under treatment the previous year and following are the results since their original admission to the camp:

20 gained.
3 lost.
Greatest gain, 83½ lbs.
Smallest gain, 3 lbs.
Average gain, 21¾ lbs.
Greatest loss, 5 lbs.
Smallest loss, ½ lb.
Average loss, 2⅔ lbs.

In the absence of any specific germicide it is now generally acknowledged that the basic principle in the treatment of pulmonary tuberculosis lies in hygienic and dietetic measures, and full use of these means is made in our camp treatment. Dealing as we do with insane patients, the greatest difficulty has been experienced in properly caring for the sputum, but by continued effort the majority of the patients are taught to use cuspidors and spit-cups, the latter being made of papier-mâché and being



MANHATTAN STATE HOSPITAL, EAST—CAMP A—TUBERCULOUS PATIENTS—SUMMER LOCATION.

burned after use. Some few demented patients, who are untidy in their habits and who expectorate wherever they may be, are kept in bed, and the floor on each side is covered with sheets, which are dampened with an antiseptic fluid and frequently changed.

No patient with a continuous or marked elevation of temperature is allowed out of bed, rest being an important factor in the recovery of such individuals. But in selected cases daily exercise is employed and such patients as are mentally capable pass their leisure during the summer months in playing croquet, quoits, and some few are allowed to play baseball.

Aside from the extra diet and pure air the resistance of the diseased organism is augmented by the use of simple restoratives and tonics, while numerous patients are found who are unable to assimilate the rather large amount of food given them without medicinal aid. Symptomatic treatment is employed in the relief of cough, fever, etc., but the greatest benefit results not from the medicinal treatment of the special conditions, but from the constant bathing in pure air and from the hygienic surroundings, which in themselves promote assimilation and enable the system in many cases to successfully combat the invading bacillus.

On the 25th day of June, 1902, the second season of the camp for demented and uncleanly patients was opened. The results were equally satisfactory as during the previous year, improvement being noted both mentally and physically in all cases. The plan carried out was practically the same as in the previous year, an assortment being selected who were for the most part stupid and demented and also very uncleanly in their habits. Four paretics and one epileptic were placed among the number. The system of weighing was carried out as heretofore, the weight being taken on admission and after every subsequent second or third week. On admission three weighed less than 100 lbs., the lowest weighing only 86 lbs., a paretic in the last stage and who had been in the camp the year previous. The highest weight was 145 lbs. on admission. At the second weighing every patient had gained in weight except two of the paretics who weighed exactly the same. The highest gain was 14 lbs. At the next weighing all had gained over their last weight, except three who weighed the same but had gained over the first weight. The

highest gain over the first weight was 17 lbs. The next weighing showed a gain in all except one, who weighed the same, but had gained over his first weight. The highest gain was 18 lbs. The last weighing showed that every patient in the camp had gained over the previous record. The highest gain was 22 lbs. over the first weight, the lowest being 5 lbs. The average gain for the camp season per patient was 12½ lbs.

The results were even better than last season for several reasons. A few of the cases were more unfavorable for treatment, such as the four paretics in the last stage and one epileptic.

The average gain per paretic was only 4 lbs., which would tend to diminish the average, they being very filthy in their habits on admission, and the treatment only sufficed to prolong their lives, as they have all died since the breaking up of the camp. The epileptic boy gained 16 lbs., and it was noticed that his seizures became less frequent, he became brighter and made an improvement in every way. It has also been noticed that since going into the wards his seizures have become more frequent and he is gradually passing into a state of dementia. Another patient, who seemed a very unfavorable case on admission, gained 15 lbs., became bright and cheerful, and at the time of the breaking up of the camp was perfectly clean. The depression and apparent dementia disappeared and he became a willing worker. Another was a case of chronic melancholia, who would refuse to eat at times and would lapse into a state of stupor. He gained 6 lbs., but for three weighings weighed the same. His greatest gain was the last weight, and he would undoubtedly have made a greater advance had the season lasted longer. A great mental improvement was noticed and he began to take an interest in his surroundings, even asking for employment, realizing that he needed employment for his mind and body to better his condition. Another, who was a very uncleanly patient, gained 17 lbs.; his mental condition also showed great improvement, and he also asked for employment and wished to be sent to one of the best wards on the closing of the camp.

The third camp season for this class of patients will open within a short time, as will a camp for convalescent workers, which we are justified in believing will show the same encouraging results.

MANHATTAN STATE HOSPITAL, EAST—CAMP C—DEMENTED AND UNCLEANLY WOMEN PATIENTS.

MANHATTAN STATE HOSPITAL, EAST—CAMP D—CONVALESCENT SHOP WORKERS.

Only such patients as are employed indoors in the various work-shops of the hospital will be placed in this camp, thus affording to these patients, who are of necessity somewhat confined, an added opportunity to receive the benefit to be gained from fresh air and hygienic surroundings.

In conclusion we would state that we consider the results obtained with the camp treatment at the Manhattan State Hospital, East, to be of such a character as to warrant us in employing it as a practical therapeutic measure in the modern treatment of the insane.

A CONSIDERATION OF THE HEREDITARY FACTORS IN EPILEPSY.*

By R. E. DORAN,

First Assistant Physician, Craig Colony for Epileptics, Sonyea, N. Y.

"Hereditary taint has certainly a great influence on the production of epilepsy." This quotation from Trousseau's "Clinical Medicine" represents the best opinion on this subject as well to-day as when it was written. Realizing this, it is not my intention to present additional evidence in favor of a fact which has long been accepted, but rather to investigate the hereditary influences affecting the first thirteen hundred patients admitted to the Craig Colony for Epileptics with the view of ascertaining to what degree various hereditary factors have acted.

While no doubt exists as to the influence of heredity in epilepsy, there has been no little discussion as to what constitutes heredity. Believing that this subject, though understood, was not appreciated as fully as its importance demanded, the writer began an analysis of our histories. On account of the lack of opportunity, heretofore, for investigating the subject on so large a scale in this country, and because of the interest attached to such an investigation, it seemed that an analysis of these cases was justified, although the work might not result in any material addition to our knowledge. An effort has been made to compile all statistics on which this paper is based in an impartial and unprejudiced manner without attempting to prove or disprove any commonly accepted belief. While it will not be possible to arrive at the whole truth, some important data may be obtained.

Aside from the complicated questions arising in such an investigation and the difficulty of estimating the comparative influ-

* Read at a meeting of the Willard State Hospital Medical Society, Willard, N. Y., Feb. 18, 1903.

ences of different diseases in the causation of epilepsy, it is extremely difficult to obtain the fundamental facts on which the whole investigation depends. This is particularly true of cases in public institutions such as ours, which, up to the present time, has received many patients from county houses without any information relative to the family history. Statements made by the patients themselves on this point are not to be depended on. The friends of many patients are unable to comprehend the importance of an accurate history and many are lamentably ignorant concerning the occurrence of certain diseases in their relatives. The result is, that while our histories are complete in all cases where it is possible to obtain correct information, they cannot be as reliable as we could desire.

Allusion has already been made to the diversity of opinion as to what constitute the hereditary factors in epilepsy. This cannot be better illustrated than by the following quotations from standard works on the subject. Berkley[1] claims that the "etiology of idiopathic epilepsy is mainly to be sought in alcoholism in the parents, which induces a defective organization of the brain structure in the descendants." He states that Aronson, in a study of heredity in 508 epileptics, found a history of neuropathic disease in the parents in 32 per cent; that Wildermuth in 145 cases found inherited tendencies in 49 per cent, drunkenness on the part of the parents contributing nearly one-half of the cases.

Again he states: "Alcohol and heredity are so closely connected that it is almost impossible to separate them. Pronounced alcoholism in the parents always means examples of mental diseases and weak-mindedness in the children, provided the alcoholic tendency is not acquired somewhat late in life."

Bevan Lewis[2] says: "It has been conclusively shown that, as regards the criminal at least, epilepsy is a most frequent sequel in the offspring of paternal alcoholism; the average age for the commencement of the fits for those epileptics who have a direct hereditary history of drink is less by four and one-half years than for those whose parents are returned as sober." Again,[3] he refers to parental intemperance as a "potent source of all forms of convulsive neuroses."

Feré[4] quotes Moreau de Tours, Hammond and Nothnagel, to

the effect that drunkenness is to be considered an important hereditary factor. Esquirol and Morel dwelt on drunkenness at the moment of conception as a cause. On the other side, Gowers,[5] though admitting that alcoholism may be due to a neuropathic tendency, is not willing to trust alcoholism as an evidence of such tendency. In investigating the question of heredity, he takes into consideration insanity and epilepsy only, though he admits that to a "smaller degree, chorea, chronic hysteria, migraine and some forms of diseases of the brain and spinal cord" are also states through which the epileptic tendency is manifested, though these neuroses are so closely related with so many other morbid states as to make their significance uncertain.

Concerning this question, Echeverria[6] says: "For a parent to transmit epilepsy to his offspring it is not necessary that he should himself present the spasmodic neurosis, for any other one propends the same results."

It is doubtful if other diseases, such as tuberculosis, rheumatism and cancer have any influence in the causation of epilepsy. Strahan[7] regards these diseases, as well as the neuroses, as evidences of family degeneracy and consequently as likely to appear in the same family or to be transmuted into epilepsy or other neuroses in the offspring. He gives family histories to show the occurrence of the various neuroses in families in which cancer, tuberculosis, syphilis and rheumatism exist. Echeverria[8] states that in his opinion "hereditary taint, whether of nervous or cachectic disease, is not an unimportant predisposing element in epilepsy," though he is not inclined to hold extreme views on this point.

Aside from the neuroses, Gowers[9] mentions only rheumatism, gout, syphilis and tuberculosis. Concerning rheumatism, he says it is difficult to perceive evidences that it acts as a predisposing factor. He attaches little weight to the influence of gout and inherited syphilis and explains the frequent occurrences of tuberculosis in the family history of epileptics by the great prevalence of tuberculous diseases in the community. He regards the occurrence of tuberculous disease in epileptic families as merely accidental. On this point, the same authority says: "Curious association with every form of disease will be heard of, but this does not prove a causal relation to epilepsy, because instances

just as striking will be found in a corresponding number of individuals free from epilepsy. In general, any causal relation to epilepsy of inherited diathesis outside the nervous system has yet to be proved."

Believing that alcoholism in the direct ancestors is a potent cause of epilepsy, I have included it in the group of three factors which are, in my opinion, responsible for the greatest number of hereditary cases. Alcoholism, epilepsy and insanity, in the order named, have been responsible for a large number of our cases. While it is very difficult to estimate the influence of the other neuroses, it cannot be doubted that they have some influence, hence all the neuroses are also considered by themselves.

The last group includes diseases such as rheumatism, tuberculosis and cancer, which have appeared frequently in our histories. The last class of diseases has been considered more for the purpose of securing statistics as to the frequency of such diseases in the family history of epileptics than to show any causal relation between them and epilepsy.

Of the 1300 cases under consideration, 800 were males and 500 females. Heredity of all kinds was positively denied in 396; 502 cases had a history either of alcoholism in the direct ancestors, or of epilepsy or insanity in the family.

A history of neuropathic hereditary disease of some kind existed in 605 cases. Other diseases occurred in combination with the neuroses quite frequently. 198 cases showed a history only of non-neuropathic diseases, the chief of which were tuberculosis, rheumatism and cancer.

Two hundred and fifty-two, or 19.3 per cent, had a family history of epilepsy, either direct or indirect. This disease occurred 309 times in these histories, as follows:

Grandparents.....	31	109 times in the direct antecedents of 102 cases.
Father	32	
Mother	46	
Brothers and sisters	68	200 times in the indirect history of 150 cases.
Other collateral relatives..	132	

This shows the direct transmission of epilepsy in 7.8 per cent and the occurrence of the disease in the collateral history of 11.5 per cent of the cases. Epilepsy occurred more than once in the direct antecedents of 7 cases.

Insanity appears 118 times in the family history of 103 patients, or in 7.9 per cent, as follows:

Grandparents	25	46 times in the direct history of 42 cases.
Father	7	
Mother	14	
Brothers and sisters	13	72 times in the indirect history of 61 cases.
Other collateral relatives	59	

3.2 per cent of the cases had a history of insanity in the direct ancestors and 4.7 per cent showed the disease in the collateral branches.

There can be no doubt that the foregoing figures, at least as far as insanity is concerned, fall far short of the truth. There is great probability that, had we been able to obtain data in all cases where hereditary history is denied or unascertained, the percentage showing insanity in the family history would have been much greater. The same would probably have been true of epilepsy. This conclusion is justified by a comparison of our figures with those obtained by Gowers,[10] who found a history of insanity or epilepsy in 973 out of 2400 cases, or 40 per cent. 600 of his cases were private, and consequently furnished more complete histories than can be obtained from public patients as a class.

Alcoholism occurred 309 times in 283 cases, or in 21.6 per cent, as follows:

Grandparents	27	284 times in the direct antecedents of 263 cases.
Father	234	
Mother	23	
Brothers and sisters	8	25 times in the collateral history of 20 cases.
Other collateral relatives	17	

This condition appears more than once in the direct ancestors in 21 cases; 20.2 per cent have a history of direct hereditary alcoholism; 19.7 per cent show alcoholism in the parents and exactly 18 per cent have a history of alcoholism in the father.

Considering the three foregoing diseases together, we find they occur singly or in combination in 502 cases, or in 38.6 per cent. This percentage represents their combined hereditary effect. In calculating it, allowance was made for all histories which showed a combination of two or more of these diseases in the ancestry, so that each case which enters into the percentage is considered only once.

The combinations between these three diseases in the histories are as follows: All three of them existed in 6 cases. Epilepsy and alcohol were found together in 59; alcohol and insanity in 17; and epilepsy and insanity in 30.

The following is a consideration of neuroses other than epilepsy and insanity in these cases.

Migraine occurred 140 times in the history of 132 cases, or in 10 per cent. This disease occurred in direct heredity in 9.1 per cent; 7.3 per cent of the 1300 cases showed a history of migraine in the mother.

Hysteria occurred 19 times, 15 times in the direct and 4 in the indirect. Chorea appeared in 6 histories. Suicide occurred in the parents in 7 cases and in other relatives in 2.

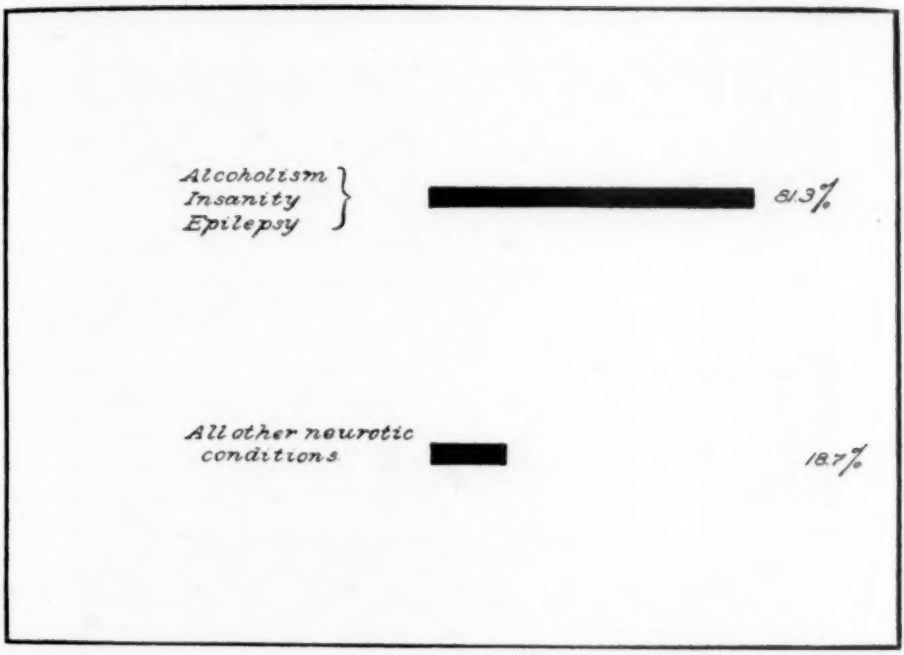
Deafmutism occurred in the collateral relatives in 4 cases. Consanguinity was recorded in the parents in two cases. In both, the parents were cousins. In one, epilepsy and insanity existed on the father's side, and in the other the father himself was an epileptic, so that the mere fact of consanguinity in itself had little if any weight in these cases. Though cases may occur which seem to prove the contrary, it is probable that consanguinity in parents not affected by neurotic predispositions has no influence in causing epilepsy.

A family history of idiocy or imbecility occurred in 21 cases.

We find that the foregoing diseases, alcoholism, epilepsy, insanity, migraine, hysteria, deafmutism, chorea, idiocy and imbecility occurred in 605 cases, or in 46.5 per cent of the total. The following chart (a) shows the comparative influence of alcoholism, insanity and epilepsy taken together and of all other neuroses considered together, in these 605 cases.

The table (b) shows the number of histories in which each of the foregoing diseases appeared and gives an idea of the frequent combinations existing between them in the same history, as the total number of cases in which the disease occurred was only 605, whereas the total shown in this table is 829.

The diseases other than alcoholism and the neuroses occurring often enough in our histories to be worthy of mention, are tuberculosis, rheumatism and cancer. Tuberculosis occurred in the history of 263 cases, or in 20.2 per cent, appearing in the direct ancestors in 151 cases, or 11.6 per cent, and in the collateral his-



	In the direct heredity.	In collateral branches.	Total histories.
Epilepsy	102	150	252
Insanity	42	61	103
Alcoholism	263	20	283
Hysteria	15	4	19
Chorea	4	2	6
Suicide	7	2	9
Deaf mutism	0	4	4
Migraine	119	13	132
Idiocy & Imbecility	5	16	21
	557	272	829

tories in 8.6 per cent of the cases. Rheumatism occurred in the history of 176 cases, or 13.5 per cent. In the parents or grandparents it was found in 160 cases or in 12.3 per cent. Cancer was present in the history in 43 cases, or 3.3 per cent; in the direct heredity in 36 cases, or 2.7 per cent.

Taking the number of cases in which the three last mentioned diseases occurred alone, combined with each other, or with neurotic conditions, we find it to be 482. Of these 482 cases there were only 162, about one-third, in which a history of some nervous disease did not also exist. It seems that this fact does much to controvert the belief that such diseases are potent hereditary sources of epilepsy. It is altogether probable that, if accurate information were obtainable in all cases where some one of these non-neuropathic diseases is given as an hereditary cause, we should find some nervous disease or tendency to which to attribute the epileptic predisposition. While this is probably true in the majority of such cases, there may be some where such diseases predispose the descendents to epilepsy or other neuroses by weakening the resistance of the nervous system.

There may be evidence at times to justify this theory, but there can be none sufficient to warrant us in considering such diseases as evidences of neuropathic tendency in the ancestors, or that they may be transmuted into epilepsy or other neuroses in the offspring. Aside from the small number of cases which are in any way due to the weakened resistance in the offspring, resulting from such diseases in the ancestors, it may be pretty positively asserted that the occurrence of such diseases in the family histories of epileptics has about as much significance as the occurrence of small-pox. That they occur in epileptic histories more frequently than this last-named disease is simply due to the fact that they are more prevalent. The thought occurs in this connection that tuberculosis is becoming less frequent. It is the most prominent disease in these histories, aside from the nervous diseases mentioned. If it has any significance as a cause of epilepsy, we are justified in expecting that a decrease in the prevalence of tuberculosis will be followed by a corresponding decrease in the prevalence of epilepsy. There is, however, no evidence obtainable to indicate that epilepsy is becoming less prevalent.

Neither tuberculosis, cancer or rheumatism can be considered

hereditary in the sense in which nervous and mental diseases are inherited. The tendency of medical discoveries of late has been to show that tuberculosis and cancer, at least, are not inherited as frequently as acquired. No one now doubts that tuberculosis may occur accidentally in any family. It probably occurs in families free from epilepsy as often as in families affected with the disease.

Statistics on this point are difficult to obtain. Russell,[11] while inclining to the belief that an inheritance of tuberculosis predisposes to epilepsy, presents statistics which tend to prove that though epileptic patients show a large inheritance of phthisis, yet the inheritance of tubercular disease in patients suffering from some of the other diseases in which he has investigated this question, viz.: specific fevers, anæmia, acute bronchitis, is almost as frequent.

As to the side of the family from which epilepsy is more frequently inherited, it may be said that considering epilepsy and insanity only, as hereditary factors, out of 193 cases in which the data was sufficient for this investigation, 98 cases showed inheritance from the mother's and 84 from the father's side, while 11 showed hereditary influence on both sides. Of these 193 cases 117 were males and 76 females. Leaving out the cases showing inheritance on both sides, there were 58 males who inherited the disease from the mother's side and 50 who inherited it from the father's. In 40 females the inheritance was from the mother's and in 34 from the father's side.

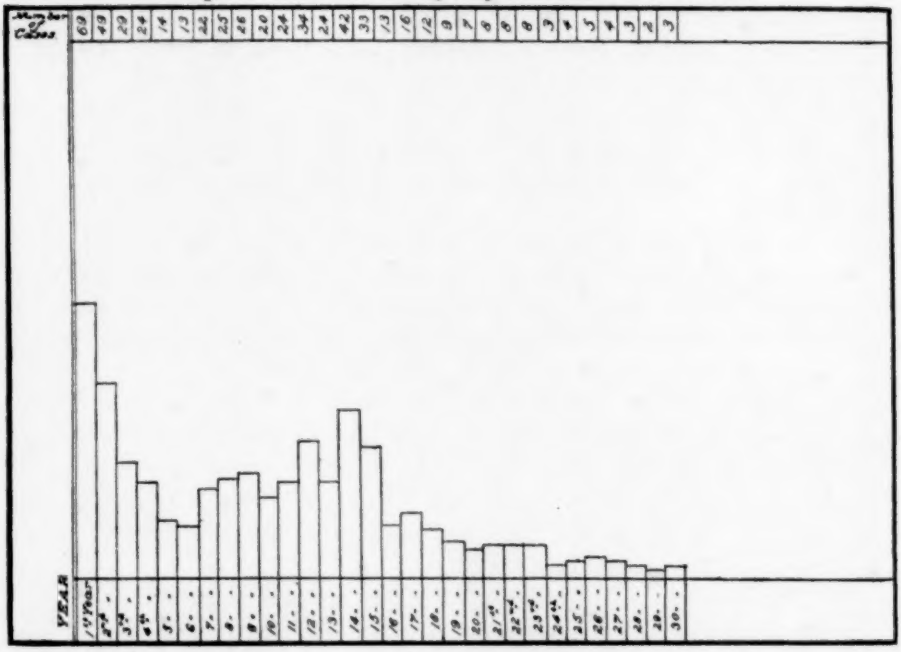
The number of females with inherited epilepsy is greater than that of males. This fact is well established by Gowers and others.

The foregoing figures do not at first appear to be in accordance with this rule, but when we remember that in the total cases under consideration, the proportion of men to women is as 8 to 5, we find by a simple calculation that the number of females with inherited epilepsy is larger in proportion than the number of males.

The influence of heredity on the age of onset is of some interest in a study of this kind. It is difficult to obtain reliable data on this point, but taking our figures as they stand, we find the age of onset is given in 1217 of the cases. The average age for the beginning of epilepsy for this number is 12.36 years. Taking

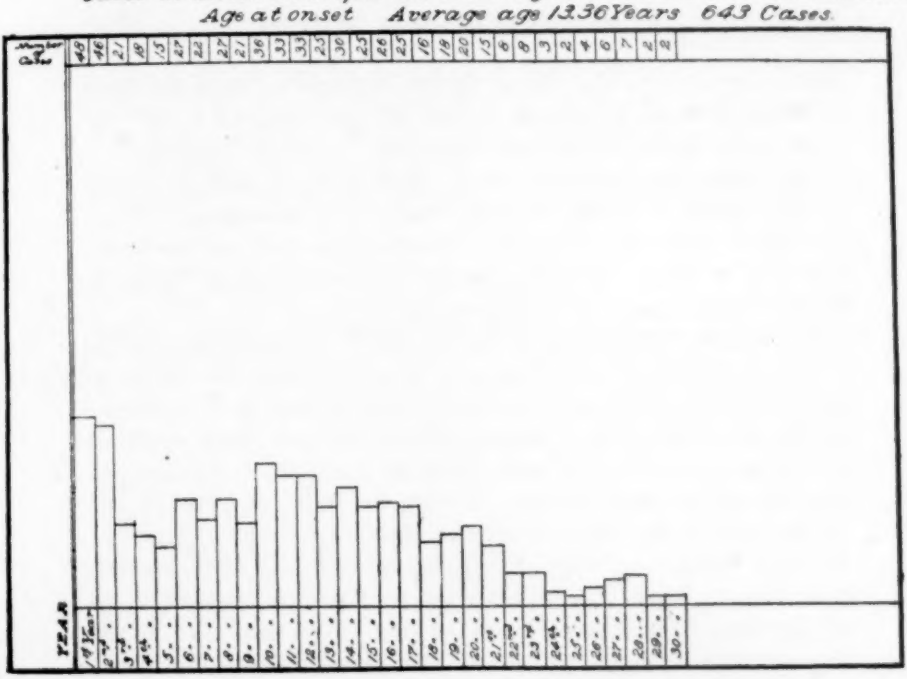
574 cases with neuropathic heredity, in which the age is stated, we find the average age of onset is 11.22 years. Leaving these last-named cases out of consideration and taking the remaining cases, we find the average age at onset to be 13.36 years. This is shown better by the following charts (c, d, e).

Cases with Neuropathic heredity.
Age at onset Average age 11.2 Years. 574 Cases

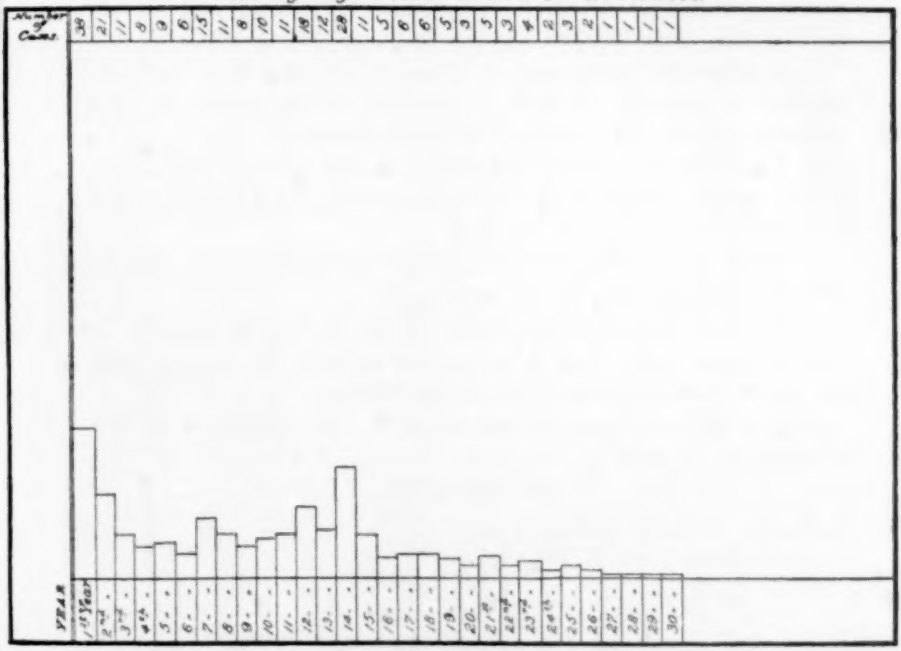


Taking the cases with alcoholic history, the age at onset was 10.8 years. The same average age occurs in those cases where insanity occurs in the history. The average age at onset in the cases with epileptic family histories is 10.17 years. The combination of alcoholism and epilepsy in the history brings the average age at the beginning of the disease down to 9.9 years. The lowest average age at onset was found in cases which had a combination of alcoholism, epilepsy and insanity in the history. There were six cases of this kind, which are too few on which to base any conclusion, but it may be stated that the average age for

Cases in which Neuropathic heredity was denied or unascertained.
Age at onset Average age 13.36 Years 643 Cases.



Cases with Alcoholic Ancestry
Average age onset 10.8 Years 273 Cases



these was 9.5 years. These figures prove that heredity does influence the age at onset and tend to show that as a rule the more unfavorable the heredity, the lower is the age at onset.

The accompanying charts show the number of cases occurring in the different classes, in each year, up to the age of thirty. Numerous cases in all classes occurred after the age of thirty. Cases in which a hereditary history was well marked began at the age of 32, 37, 42, 45 and 67 respectively.

As a further illustration of the influence of heredity on the age at the beginning of the disease, it may be stated that while 20 per cent of the total cases and 17 per cent of cases without neuropathic hereditary history began during the first three years of life, over 25 per cent of cases showing neuropathic heredity began during the same period. During the first ten years of life 46 per cent of the entire cases had their beginning; 43 per cent of those without neurotic history and 50 per cent of those with such history began during this period. Between the ages of 10 and 20 there is no difference; 38 per cent of the total cases began between these ages and 39 per cent of cases with and without neuropathic history began at the same period; 84 per cent of the total began during the first twenty years; 82 per cent of cases in which neuropathic heredity was denied or lacking and 89 per cent in which such history was found began during this period.

The points to which special attention is called may be summarized as follows. A study of heredity in the history of 1300 epileptic patients in a public institution shows:

1. That though it was impossible to secure data in many cases, yet a definite history of the various neuroses or alcoholism was found in 46.5 per cent of the total.

2. Alcoholism, epilepsy and insanity combined were responsible for 38.6 per cent of the total cases.

3. Paternal alcoholism existed in 18 per cent of all cases.

4. Diseases other than those connected with the nervous system have little hereditary influence in epilepsy.

5. The age of onset is influenced by the character of the heredity.

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PREVALENCE OF INSANITY IN CALIFORNIA.

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California has been most extensively advertised and its merits and demerits so thoroughly discussed, and, in certain ways, so faultily presented, that much misconception exists as to our real climatic advantages and disadvantages.

Amongst the most important of these misconceptions is the belief that our climate aids in developing the neuroses. Both at home and abroad the high percentages of insanity, shown by our statistics, have become the stock arguments of alarmists. Not only is the large proportion of insane to sane, which really does exist, misunderstood, but the deduction is drawn that, if this increase continues, it will only be a question of a few generations until our whole population will become nervously tainted.

It is well known that the most foolish theory can be proved by figures, and that absurd statements may have a kernel of truth. Statistics certainly show that California not only leads the other States, but is well in advance of the most civilized countries of Europe.

This question of the influence of modern civilization on the development of insanity is not new. It admits of various interpretations and has never been satisfactorily answered.

The practical application of steam, electricity and the proper manipulation of the products and powers of nature have made this a new world; and the last 50 years, which have brought such great physical changes in our manner of life and surroundings, have also revolutionized our mental habits and modes of thought. It would not be strange if this vast physical and mental revolution did not bring in its train a certain exhibition of weakness as well as development of mental strength, and that in the consequent survival of the fittest very many have fallen by the wayside.

In nothing has this revolution been so great as in medicine, and, with this general advance, most prominently can be mentioned the care bestowed upon the mentally diseased.

This has come within the last half century, and, taking the year 1850 as the basis for our investigation, the statistical increase is startling. In England, for instance, the registered insane numbered only 30,000. Thirty years later, with a population but 25 per cent greater, there were 70,000—an increase decidedly over 100 per cent. At the present time the estimated increase is over 25 per cent above that of 1880.

This is true not only of England but of all civilized countries, and the same ratio—about 1 to 300—prevails over the continent of Europe. Occasionally this increase has been accepted literally, and on it have been predicated Malthusian theories destructive to the human race.

A careful study shows not only the faultiness of the theory, but that, in place of civilization being a menace to society, it is a most beneficent friend, protecting not only the public at large but aiding individuals to bear the strain which, in a less civilized country, would utterly crush them. Nor is this high ratio simply the result of better tabulation and a more complete segregation of the insane from the sane. Modern methods of treatment and a humanitarian spirit in providing properly for their care, have not only resulted in restoring many who would have died, but, because of the great mortality incident to the older methods, now even where cure is not effected, life has been greatly prolonged. This aggregate increase has markedly affected our statistics. Philosophically speaking, this result may not be desirable, but a human life is a human life, whether directed by the brilliant brain of a Gladstone or clouded and fitfully gleaming in a Tom O'Bedlam. Philosophize as we may, no man who lives with these unfortunates and whose heart is drawn to them, as a mother to an unfortunate babe, can be blamed if at least their physical health is cared for, or if they are made comfortable and given the small pleasures of life, in place of the filthy cells, clanking chains and bestial surroundings which were formerly their lot. A community which liberally aids in this work and gives unstintingly, that the lives of these unfortunates may not only be rendered bearable, but in many ways pleasant, deserves praise.

A high insane ratio does not necessarily mean either a nervously bankrupt nation or merely one whose statistics have been carefully tabulated. It means much more: not only a nation civilized, but, to the highest degree, humanized. It is a badge of honor to a nation, as the gold medal is given to the life-saver, and the more highly this spirit is developed, the better for the public at large as well as for the individual.

Details as to the methods of care greatly vary the statistical returns, even when the number of insane is practically the same. This can well be illustrated by studying California methods as a type of the modern treatment, and how the peculiar nature of this care has to the extremest developed statistical records.

Of the great States of the Union, California is the youngest; and her birth some fifty years ago was coincident with the revolution in the care of the insane. For this reason it was not necessary to revise old systems and there were no prejudices to uproot. Entering the Union in 1849, its early settlers were necessarily strong, hardy and healthy. In the year 1851,[1] with a population of 130,000, there were but 6 registered insane, or a ratio of 1 to 21,000.

This ratio rapidly rose till, in 1860, there was 1 to 1000, and in 1870, soon after the completion of a connecting railroad, one insane person was tabulated for every 500 of the population. This percentage has gradually risen till, at the present time, the registered insane number 5650, or 1 to 260.

There are several reasons for this large ratio. Our peculiar method of care makes the asylums popular, not only because of the confidence the public have in the management of these institutions, but especially because of the great facilities they offer for the disposal of all who are decrepit from age, from mental infirmity, or who, for any other reason, have become burdens either on the public at large, or whose friends do not feel equal to their care. Though the law is sufficiently explicit that only the dangerously insane can be committed, the law is constantly evaded.

[1]

1851	1 : 21000	1880	1 : 360
1855	1 : 1300	1885	1 : 350
1860	1 : 930	1890	1 : 340
1865	1 : 720	1895	1 : 300
1870	1 : 550	1900	1 : 270
1875	1 : 450	1902	1 : 260

In the past, the State paid all expenses of commitment and transfer to the hospitals, and, in addition, completely supported and clothed the patients. Dr. Hatch, General Superintendent of State hospitals, says in his report for 1902: "It has accepted in its hospitals the very old and the very young, epileptics of all grades, cases of pure senility. The policy has been to care for the insane entirely at the expense of the State. The laws governing the commitment of patients have been liberal, and their interpretation still more liberal. The main question regarding committal has been, shall the individual, whatever the cause of his mental derangement, and whatever the character, be sequestered for the protection of the community and himself?" Many counties adjacent to our great asylums have to a certain extent dispensed with their poorhouses. Those further away have also participated in this practice, for even the examination meant a disbursement of State funds, while a commitment included a junketing trip for the officer in charge. No possible patient was overlooked. A premium was placed upon securing such a case, and it is certain that not only the actively insane but all the decrepit, feeble-minded and incompetent swell our ratio.

In its effort to intelligently carry out its trust, California, in 1870, sent a commission to Europe for the purpose of studying asylum methods and to obtain the best possible plans for housing the rapidly increasing insane population. Unfortunately, the style of architecture then prevalent in Great Britain was selected. The asylum at Napa, imposing in appearance, with wings spreading a quarter of a mile from its great central body, costing $1,500,000, is a monument to California's generosity; but the same style of building adopted for the new asylums at Agnew, Ukiah and San Bernardino are equally monumental of her folly. Napa was originally designed to accommodate 600 patients, and later by furnishing attics, placing beds in hallways, crowding dormitories and placing two patients in a room barely large enough for one, a thousand patients could be cared for. In other words, as originally planned it cost the State $2000 for each patient properly housed or $1500 per capita as enlarged. Its present population is about 1500, many being temporarily bedded on mattresses spread upon the floors. At night one cannot walk across certain wards without stepping over these re-

cumbent bodies. These facts, patent to all, did not deter the State from adopting similar plans in the three asylums since built, plans possibly less ornate and giving a slightly lessened per capita cost, but still a maximum expenditure with a minimum result.

Even could the patients be properly bedded, no building holding 1500 can be so constructed as to properly isolate and segregate, thus individualizing their treatment. All asylums receive the acutely insane, and, necessarily, must give all that is best in them for those acutely sick and curable. The chronic are slowly pushed into the back wards and finally are buried in the "yards," walled spaces more necessary here than in the East, for our asylums are furnished with only one nurse for every 25 or 30 patients, and, with disturbed cases, personal care or watching is not possible. For those chronically insane, asylums with an entirely different system of management have been advocated, but so far the matter has not been seriously considered. This is the more regrettable because California, with her thousands of arable acres, with her climate so equable that concentrated buildings are not necessary, having a soil especially adapted to vineyards and orchards, small fruit and truck gardens, should have been an object lesson to her sister States. She does not know that, both for herself and her wards, a great opportunity has been overlooked, and she still is burdened by thousands who not only would be mentally and physically benefited by this out-door life, but who might to a certain extent become self-supporting. Biennially she heeds the cry of distress, makes large appropriations and continues to add wing upon wing to her prison-like structures. Individual superintendents, from time to time, by begging small appropriations and almost surreptitiously using their contingent funds, have been allowed to add a few cottages, but as they did not always harmonize with the landscape and did not loom up as magnificently as the stone structures, they have not been popular with legislative committees. The original asylum at Stockton, built in a haphazard way, composed of many separate buildings, erected as necessity demanded, still holds the first place in size and is amongst the first in public estimation.

Founded in 1851, it was, for many years, presided over by Dr. George Shurtleff, and the high standard both of personal merit

and professional attainments which he stamped on its management has been most worthily borne by his successors, only men of eminent fitness having succeeded to this position. This is true of all our hospitals for the insane, for, except in one or two flagrant instances, they have been practically free from political meddling. Men, honorable in our profession, have uninterruptedly held the superintendencies and all that ability and wise prevision can do, has been done, with results satisfactory to the patients and creditable to the institutions. But here, as elsewhere, the authorities in charge regard that superintendent as the best who can, in his management, show the smallest per capita cost, rather than he who exhibits the largest percentage of cures.

Another most unfortunate feature in the care of the insane is the elaborateness of the legal steps necessary to gain admission. In all cases a jury trial, in every way similar to that held in criminal inquiries, may be demanded. "No one can be deprived of liberty without due process of law." This theory, good in itself as it concerns ordinary crimes, is most absurd when applied to such sickness as a diseased mind begets, and is worthy of a place amongst the refined cruelties practised upon this class in the darkest period of the Middle Ages. A delicate woman sick in body, her mind filled with morbid fancies, distorting even every-day happenings of life into plots concocted against her, is haled into court, as though she had committed some crime; too often the subsequent methods of transfer and the necessary reception in the jail-like wards confirm her in these delusions; and a brain, thus shocked, is in but poor condition to receive treatment. In place of reorganizing the criminality of this judicial procedure, laws, recently enacted for its betterment, have been revoked, and the commitment has been made still more strenuous.

Notwithstanding the disadvantages of construction, the overcrowding, the financial limitations, the legal steps necessary for commitment and some other disadvantageous features: though they do not compare with many Eastern hospitals constructed on more modern, though not more liberal plans, the present institutions are apparently satisfactory to our citizens, and no hesitation is felt or expressed in committing to them their sick, helpless and mentally enfeebled. They are not only thoroughly satisfied with themselves, but with the officers in charge of these hospitals; and

it is this public confidence, so justly bestowed, that redeems the whole system.

While it is true that this heterogeneous collection of the epileptics, the aged, the vagabond and the helpless, have greatly swollen our ratio, it by no means fully accounts for it. Adjacent States, not so well supplied with hospital facilities, have in the past added to our asylum population, but this is small compared with the world's treatment of California. Geographically speaking, she is the Ultima Thule, beyond which restless humanity cannot go. Not only do tens of thousand seekers after health come here, many of whom are tuberculous, or at least possess the scrofulous diathesis so closely allied to the nervous, but she is the dumping ground for the off-scourings of creation, who, no longer able to go westward, discouraged, not willing to take a back track or not able to pass the mountain and desert barriers, exhausted physically and bankrupt mentally, become a burden upon us. A brief study of our statistics not only proves this, but clearly demonstrates that climate, civilization, age, sex and occupation do not in any way affect our ratio except favorably.

California now has a population a little over 1,500,000. Of these, 376,240 (census 1900) were born in foreign countries, 1,117,813 in the United States. In other words, the foreign-born do not constitute quite 25 per cent of our population. The number of registered insane in our State hospitals is 5276, of whom only 2325, or 42 per cent, were born in the United States. In other words, the 25 per cent foreign-born provide 57 per cent of our asylum population. This does not mean, necessarily, that either dements were sent us or that those coming were particularly weak mentally. It does mean that the change of environment, food and social customs; that homesickness with separation from old associations and friends; and that the struggle for existence tend powerfully to upset a brain that, under more favorable conditions, would have shown no special weakness. What is true of California is, to a certain extent, true of all States having a large foreign population. A large foreign-born ratio presupposes an undue insane ratio. In the report of Dr. Hatch, already referred to, this question, as it relates to New York, Iowa and California, is discussed, and his conclusion is that California's proportion of the foreign-born population is unduly large.

His conclusion is based upon admissions for the past two years. Had he taken the total population in our asylums as a basis, the proportion would have been still greater. Based upon total admissions, foreign-born is to native-born as 58 to 42; based upon admission for the past two years it is 45 to 55. This is to a certain extent due to a smaller foreign immigration and a larger influx from other States. Thus in the asylums of Northern California, where immigration is not so marked, commitment of natives of the United States was but slightly in advance of that of the foreign-born, but in Southern California, of 450 admissions, only 149 were foreigners.

To a less extent, but still very appreciably, immigrants from other States furnish a large proportion of insane. Deducting the foreign-born of our population we have nearly 1,200,000 credited to the various States, of whom 700,000 were native-born. This number furnishing nearly 50 per cent of the entire population, is credited with only 419 patients, or 17 per cent of the 2490 committed in the past two years. While these statistics are true, we see here another evidence of the faulty application to which they can be put. Nearly all the foreign-born population, and the great majority of immigrants from other States, are adults, and, as such, should furnish a larger proportion of our insane than can be expected from the native-born. The fact that our own are of all ages up to 54 (a small proportion over 45 and the great majority under 20, an age before which insanity in the proper sense of the term rarely occurs) greatly complicates any legitimate deduction; yet this conclusion can be safely reached: that those born in California, who constitute 50 per cent of our population and furnish only 17 per cent of the insane, can have nothing in heredity, climatic surroundings, civilization or methods of education which, more than in other communities, tend to the development of insanity.

Heredity does not figure conspicuously. Though our great ratio is mainly due to the large foreign population, this tendency seems to be confined to the first generation, our native-born being about equally divided as to parentage between foreigners and natives.

Nor does climate have any effect further than to induce habits of life and practices not conducive to mental or physical health.

Along the coast of California, especially in the region adjacent to San Francisco, the mean temperature in winter is 52° F., and that of summer 60°. No extreme of temperature interferes with work, mental or physical, and the length of time one may daily devote to it is only limited by physical or mental capacity for labor. Work usually begins at 7 in the morning and continues uninterruptedly till 6 in the evening, lunch time, as a rule, being limited to 30 minutes, except for the laboring man. A breakfast of rolls and coffee, a stand-up "commercial" lunch, with a late dinner, is the rule of life for every working-day in the year.

Neither winter cold nor summer heat compels a vacation, and none but the affluent employer can afford it. The most fortunate employee, as a rule, is given 10 days. Grinding work through the day with book accounts either at home or in the office is the rule, and often the employer works harder than the employee. Compare this with the two-hour siesta insisted on by the European, or even with what happens in the States where, for at least two months every summer, the heat compels a rest; and the frequency of certain customs to which many of our citizens are addicted is easily understood. To keep the pace, stimulation is resorted to, and many men, who take from 10 to 20 drinks a day, would resent the imputation of being drunkards.

While in the first generation this often results simply in shortened life, many dying between the years of 40 and 50, either suddenly or after a short illness, its effect upon the next generation is from a nervous point of view, disastrous. But to the man, temperate in habits and temperate in work, the climate, while invigorating, is in no sense conducive to the development of the neuroses.

Education has been charged with many crimes, not the least of which, in public esteem, is that overstudy often produces insanity. While faulty educational methods may develop latent neuroses, as a rule they do not take the direction of insanity. Judging from our statistics, education, especially as exhibited in the professions, using the term in the broadest sense so as to include engineers, surveyors, architects and artists, all who work with the brain alone, is a prophylactic; for, of 2490 patients committed, only 68 were professional men; 186 belonged to the commercial classes, such as clerks, accountants, stenographers, etc. The

great majority is composed either of the mentally deficient, who never could attain to the higher walks of life, or those who clearly did not become insane through any overtaxing of the brain. No better ballast can be given an unstable brain than to properly educate it. Too often the brain gives way, not because of education, but in spite of it.

Age presents no peculiar causative factor further than, as in all countries, insanity is a disease of adult life. Our statistics show but few cases under 20, and those probably of defective origin which, in other States, would have been classed amongst the feeble-minded.

The question of *sex* is not easily answered. Almost twice as many men as women go insane, our 5494 patients being composed of 3448 men and 2046 women. In the general population no such preponderance of men over women exists. It is probably to be accounted for by the great number of unmarried men who drift here from other countries and who form so large a part of our insane population. Probably were there as high a class of men and only such, in the State, as there is of women, the disproportion would not be so great; but certainly statistics show women to be mentally more stable.

Race does not form so important an element in the development of insanity as does the simple fact of being foreign-born. Considering only the foreign element, 1 in every 110 is insane. In some cases this percentage is higher, in others less.[2] We would naturally expect to find the fiery Irishman and the erratic Frenchman in the majority in proportion to number, and such is the case. The Scandinavian and cold-blooded German also form a large proportion. While the Chinamen, subjected to all the stress and more dissipation, especially in drugs, is the least susceptible, only 1 in 200 being insane. Yet when insanity does

	Proportion foreign population.	Proportion insane population.
[2] Germany	20%	16%
Ireland	13	19
China	12	6
England	10	8
Norway, Sweden and Denmark	7½	9
Italy	6	6½
France	3	4

develop, as a rule it partakes of the mental quality of the nation. As in France and Italy melancholia is infrequent, so here are they given to manias. A melancholy Irishman is but rarely found. The German and other northern nations are peculiarly given to melancholia and, on the slightest provocation, suicide is to be feared. National drinks may be responsible for these mental peculiarities. Certainly California beer, containing from 3 to 5 per cent alcohol, is far more dangerous than its European namesake. Twenty steins, not an unusual number consumed during the day, mean the absorption of 12 ounces of alcohol. Neither whiskey nor wine, though they may stimulate more, can so insidiously poison.

Ratios of insane to sane population.—Comparing California with other States, we find most striking differences of ratio.[8] Leading with 1 to 260, the next State approaching us is New York, 1 to 330, with Massachusetts 1 to 370. This ratio rapidly declines to 1 in 550 in Pennsylvania, Michigan and Illinois. In the Southern States it falls still lower—1 to 960 in Georgia, 1 to 1600 in Texas, and 1 to 5000 in Tennessee.

No one at all conversant with facts for a moment believes that Texas, for instance, has more insane, in proportion than has Tennessee; or, on the other hand, that it has fewer insane, in proportion, than has Georgia or Virginia. In all these States the class of population is practically the same.

The proper deduction to be drawn is that there is a vast difference in the care given the insane. For example, New York has 1 registered insane for every 330 of the population, while Pennsylvania has 1 to every 560. Crossing a State line could not make so great a difference in ratio. What does differ is State

[8] California	1:260	Georgia	1:960
New York	1:330	S. Carolina	1:1100
Massachusetts	1:370	Alabama	1:1200
Illinois	1:560	Louisiana	1:1300
Virginia	1:560	Missouri	1:1450
Pennsylvania	1:560	Mississippi	1:1460
Michigan	1:670	Texas	1:1600
Indiana	1:800	Tennessee	1:5000

The majority of these ratios are taken from the census of 1890, the 1900 census being only available for New York, Pennsylvania, Massachusetts and California.

care. In New York, as in California, all the insane are gathered in State hospitals. In Pennsylvania, while there are State hospitals, there is also county care, and many who in New York would be registered amongst the insane, in Pennsylvania are held in poorhouses or supported by county aid.

Whether the State as a State should support all who are needy or whether it be individualized by counties, is simply a question of detail. It does not reduce the number nor particularly change the real facts. California believes that, in place of allowing irresponsible individuals to wander, a care to their friends, a menace to society or a burden to some particular community or allowing counties to support such individuals on poor-farms, in almshouses or county institutions where, either because of ignorance in properly caring for them or other reasons, patients are not well provided for, all such should be gathered up in her great institutions and at least be humanely cared for and intelligently treated.

It is true that California has an unduly large number of insane and that it has been necessary to make extraordinary efforts in providing for them, yet she has faced the facts bravely, has studied the problem carefully and, to her own satisfaction at least, has solved it. She certainly deserves praise for so nobly shouldering the entire responsibility not only for those mentally disordered, but for the helpless and incompetent who have flocked here in such numbers.

The real proportion between the sane and the insane that should normally exist cannot be definitely determined. Judging from the great mass of unreliable statistics now available, all we can say is that insanity means very different things in different States. In Tennessee it can only mean the acutely insane. In California it is so broad as to include all mentally enfeebled, who are without home and without friends. It is so broad a term medically, and so narrow legally, that no two writers agree on a definition. All we can say is that a ratio of less than 1 to 500 justly gives rise to doubt of the State care afforded; and a State which does not show a higher ratio is not, in the best way, caring for her incompetents.

Is insanity on the increase? No one can positively say, for our knowledge is not of that precise nature on which to base a definite answer. But I have already expressed my own belief. Insanity

is not hereditary in the sense that an insane father or mother is necessary to beget insanity in the child. Insanity is always hereditary in the broader sense that, to become insane, one must possess the nervous diathesis.

Daily the question is asked: "Why did this insanity come? It was never before known in my family." The causes usually assigned and which in our asylum reports are so laboriously tabulated, as a rule, are simply the first symptoms.

The cause lies deeper. It is the hereditary diathesis which includes epilepsy, dipsomania, chorea, neurasthenia, hysteria and megrim, as well as moral insanities, precociousness and extreme mental brilliancy in one way directed—the *idiot savant*. In other words, it is simply one of the neuroses: any individual member of a nervous family may develop in the direction of any one of these diseases. One may have epilepsy in infancy, another chorea in early school life; a third, more precocious, passing rapidly through the schools, becomes a neurasthenic or paranoiac; still another, whose only stigma is an occasional sick headache, possesses a most brilliant mind and his life is a magnificent success. Having escaped all these pitfalls, another of this group reaches adult life, but, unequal to the struggle or placed under some great strain or long-continued adversity, succumbs and breaks mentally.

The development of this family heredity is most insidious. The commingling of two individuals, both possessing the nervous temperament, is frequently its origin. Another and more important cause can be traced to an alcoholic parent, otherwise normal. No father can indulge in long-continued alcoholic excesses without begetting neurotic children. In stamping this out, as well as in wiser matrimonial selection, lies our hope for the future.

I believe we are growing better politically, morally and socially; certainly we are more temperate. It is not necessary, as in the days of our fathers, that we show our appreciation of a good dinner by nightly becoming intoxicated, though we still express our friendship by daily libations at a bar.

We are growing more honest, more moral in our views of life and more abstemious in our habits. If this be true, and we can eliminate the moral blemish, insanity will certainly decrease, for it has its foundation in moral rather than mental weakness. Another hopeful indication is that insanity being hereditary, we are

beginning to recognize and treat its germ, not after it has fully developed and blossomed in our asylums, but by properly directing and educating the nervous child, up-building its body and regulating its life; strengthening it when weak, cultivating to the utmost what is good and rounding out its full development, mental and physical, thus rendering it, as nearly as possible, normal.

THE NATURE AND GENESIS OF AN INSANE DELUSION.

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Ever since the time when man became dominant in history, ideas have ruled the world; nay, ages before, for God's idea has been a living and a vital force since time began. There is no place where they are not, though their influence is felt in a variable degree. Ideas there are that scarce survive their birth, while there be some that are immortal, and form, like ribs of steel, the very framework of social and political existence. Invisible, imperceptible, as unsubstantial as a dream are they, and yet stronger than iron bands; more powerful than any potentate; mightier than any material force. They may be weak, evanescent, and vanish with a breath, or as fixed and enduring as the everlasting hills. They may be potent for good or for evil. They bend the knee to Omnipotence, or wring confession from a guilty soul, or lead a man to smilingly meet a martyr's death. They may be as narrow as a church's creed, or as broad as humanity itself. They may elevate and uplift, or they may corrupt and degrade.

It is generally believed that ideas have their origin in consciousness; that they are logical deductions and the product of reason and judgment. But this is not true of all. Some of the greatest, best and most sublime ideas are extremely illogical, and contrary to both reason and judgment. What can be said of an idea that leads a man to rush recklessly into imminent danger to rescue a baby from death; or enter a burning building to save some helpless one; or stand firm and steadfast in battle, with bloodshed and carnage on either hand and death and destruction around him; or leave home and friends and all he loves to follow his Master's footsteps, for the sake of the truth that is in him; or minister to the sick and afflicted, while dreadful disease is sowing the seed of contagion and reaping its harvest of death.

Ideas such as these are not founded on reason, or squared by the rules of logic, or weighed in the balance of judgment. They are not made to order; nay, verily, their origin is deeper than this.

Christ's idea was a tremendous force that has permeated every heart in Christendom. Luther's idea seemed born of God and bore upon its brow the impress of Divinity. Joan of Arc's idea was a mighty power, by virtue of which she held an army in the hollow of her hand, and grizzled warriors kneeling at her feet believed they were basking in the approving smiles of God.

Whence come ideas such as these? They are not products of scientific research and investigation. They are not found in ponderous tomes of knowledge. They do not result from burning midnight oil, nor are they laboriously dug out by the faithful and patient student. They are not reasoned into existence. They flash into the field of consciousness without warning; they come hot from the forge; they leap full-grown from the mental womb, and, notwithstanding their questionable origin and sudden appearance, reason and judgment receive them gladly; stamp them as genuine and of extra fineness, and believe, by virtue of this very questionability of origin and suddenness of appearance, that they have come straight from the throne of Omnipotence, or gushed from the fountain of Truth itself.

These ideas reign supreme over reason and rise superior to judgment. No martyr would be bound to the burning stake if guided by reason alone. Judgment would tell him it was foolish to be burned for an idea; but the superhuman quality of the idea sustains him. An idea like this dominates reason and judgment, not by opposing or overwhelming them, but by engulfing them in the ocean of its own plausibility.

From whence, then, come these ideas, which seem to us to have no human origin, and which are raised into consciousness by an unseen hand? Is it God speaking in an undertone? Is it a spark of unquenchable fire from Moses' burning bush? Is it a psychical Roentgen ray that has pierced the impenetrable gloom and given us a glimpse of Truth at last? Nay, it is none of these. Let us go further.

The mind is not a totality—it is divisible by two. There is a portion known and a portion unknown. A field of consciousness above and a field of subconsciousness below. Above, the sky is

clear; the landscape is familiar. We think, feel, act and know that it is done. We are present at the birth of ideas here, and either make them what we will, or strangle them at their inception; but below the surface is another phase of mind, where sensations are felt, thoughts are thought, and ideas born, without our conscious knowledge and without our conscious aid.

A placid lake lies shimmering in the sun. Upon its bosom floats a varied craft which carries the products of a busy world—the loom, the mill, the mine. Here, the life and activity are all in view. We see the sails filling in the wind and the ships, like thoughts, go floating by. We know the master of each; its place of departure and its destination. We hear the sounds of traffic and all is familiar and apparently complete. But this is not all. Below the placid surface lies another world, filled with unfamiliar forms, that seem to bear no relation to the world above. As we look, some monster of the deep thrusts forth his hideous head and quickly disappears. A water serpent rises to the surface, trails its length along and sinks into the depths; while ponderous forms upheave and unknown shapes disturb the tranquil scene. And, watching the widening circles, we wonder what these are and whence they came.

In subconscious cerebration ideas are fashioned and formed unconsciously. Here fact and fancy dig and delve and weave their brightest colors, undirected by reason, untrammeled by judgment. They never rest—by day, by night they work unceasingly and without our knowledge, except when mental stress or disease, or toxic substances lay their hand on consciousness, and then the veil which lies between is rent asunder and we catch a glimpse of the world below.

Many grotesque and peculiar ideas have their origin here, but all are not so, for here are hammered out those primitive truths which we know for a certainty, but cannot explain. Here are born those unexplainable feelings which we call presentiments, and here is the very soul of prophecy. Here crouch morbid fear, and unreasonable dread, groundless solicitude and anxiety; hence emanates that daring courage which is twin-brother to recklessness and first cousin to rashness and temerity.

Here are born all original ideas, for these cannot be reasoned into existence. An idea that is reasoned and judged is shorn of

its radiant glow. It may be sensible, and practical, and believed by the masses, but sensibility, and practicability, and acceptance by the masses are not marks of originality. Conscious acts are awkward; conscious ideas are unwieldy and show the birthmarks of the delivering forceps; while subconscious ideas, when they once take possession of consciousness, are full of life and color and spontaneity.

Here, in subconscious cerebration, is the breeding ground of inspirations. They lie concealed, growing day by day, acquiring strength and vigor, gathering to themselves life and vitality, adding grace and color, quietly and unostentatiously. The surface above is undisturbed and all is placid and serene until the time is ripe, and the idea bursts into the field of consciousness and flames athwart the mental sky with all the suddenness and rapidity of the lightning's flash. Then, it is so unexpected, so startling, so opportune, that reason and judgment stand aghast, believing it to be heaven-born, coming straight from the throne of grace.

Subconscious cerebration is also the birthplace of genius; the source of the imperative conception, and *here delusions are born,*

Whence, then, come insane delusions? I believe they have their origin in subconscious cerebration. They are brothers to genius and next of kin to prophecy and inspiration. They are not reasoned into existence—they grow.

Consciousness presides over the cerebrospinal nervous system, while subconscious cerebration receives its impulses from the sympathetic system and its ideas are tinctured with the vague uneasiness of ill-health, or exalted by the feelings of strength and health and vigor. Here originate those gloomy forebodings which depress and weigh us down, and for which reason can offer no explanation; and here originate that exaltation, buoyancy and illimitable hopefulness which judgment regards with approval, but knows not why.

The process of reasoning is distracted and the quality of judgment modified by influences from the outside world. The products of the five senses have an effect on what we think and what we believe, and our ideas are molded by what we conceive to be our duty to others; but in subconscious cerebration there are no eyes to see, nor ears to hear, and the outside world is unknown. Here thought is concentrated and self-centered. Ideas

fashioned here are glowing with intensity. They are highly individualized and untouched by ethical complications. Consciousness has a few external senses; subconscious cerebration has many internal ones, how many no man knows.

It is in close touch with all the vital functions; it may even direct them, who can say? The involuntary muscles of consciousness may be voluntary here, and all the physical processes of the body may be controlled and directed from this locality, with a nicety and precision unknown to conscious cerebration. Here the evidences of depraved function are first received and here the influence of toxins is earliest felt. The vital nervous centers culminate here, and here superfluous energy spends its force. Here is the center and core of the real man. Conscious cerebration is biased by established forms; judgments are molded in accordance with logical rules, and the whole conscious attitude is regulated and controlled by the usages and requirements of society; but subconscious cerebration knows no policy, nor duty, nor social laws, customs or restrictions. It is a free lance and the real, unconventional ego, and, in consequence, its ideas may possess the rare and untamed brilliancy of genius, or the wild, unreasonable and erratic elements of a delusion.

The evidences of subconscious cerebration are present, at times, in every individual, whether in a vague uneasiness; or the illy defined sensations called presentiments; or the word or name or other fact that has been supplied, almost miraculously it seemed, when all efforts to recall it had been suspended; or in an insane delusion; or in the gift of prophecy; or in moments of inspiration, when ideas, never thought of before, reveal themselves, still glowing with the heat of the smelting furnace and radiant with new light and meaning; ideas which could never be logically and methodically formed by reason, and which judgment, in cooler moments, may not even approve. These more vehement expressions of subconscious cerebration come only in times of stress—of physical illness, mental strain, or psychical storm.

No man ever reasoned himself into a delusion; but in times of perplexity and doubt, when knowledge offers no solution; when experience brings no relief; when reason is powerless to explain, an idea emerges from out that other self, inexplicably, mysteriously, as though sent from heaven in answer to prayer, and lo!

doubt disappears, perplexity is gone, the thing is explained, no matter how, and the idea becomes a dominating influence; the mentality being shaped, rearranged and transformed in accordance therewith.

Again, for ideas from no other source will a man endure as for these. For ideas from no other source will a man give up home and friends, face shame and disgrace, be burned at the stake, or be drawn and quartered, if need be, in their defense. For ideas from no other source will a man take his own life, or sacrifice his only child, or defy the laws of both God and man for their vindication.

This is a prime element in an insane delusion, namely, the strenuosity of its defense. Conscious ideas are not fixed and unchangeable. Conclusions reached through reason and judgment are modified by additional evidence as to their truth or falsity. Deductions made to-day are set aside to-morrow, because of new facts gleaned from new testimony. Something we see, something we hear, something we read calls for a new trial, with a probable reversal of judgment. And this is to be expected. A consciousness that builds up an idea logically and reasonably, with line upon line and precept upon precept, is anxious for further knowledge and willing to reconstruct if need be. But subconscious cerebration has no reason, no judgment, no precepts, no architectural laws for the construction of ideas. The materials for thoughts come we know not whence; the ideas expand and take shape we know not how; and this very defiance to the rules of logic, this uncertainty of origin, this abruptness of appearance, are the source and secret of their power.

Conscious ideas are built up methodically and philosophically. They do not seem to be a part of ourselves, but the revamped, remodeled and made-over ideas of things that we have seen, and heard and otherwise obtained. We give these to the world, indifferent to their reception and careless as to their existence. If they conform to the rules of reasoning, and show proper workmanship in their construction, we are content. But subconscious ideas seem to have been wrenched from the very ego itself, and seem to be soul of our soul and the quintessence of our deepest nature. They appeal to us as a part of ourselves; and what if they are queer and peculiar and people laugh at them? Do we

love deformed and disfigured children of our own flesh and blood any the less because people deride and ridicule and point at them the finger of disapprobation? The world may see no reason why we should lavish so much affection upon them and defend them against danger, even to death itself, but does not judgment approve our course and reason add its justification?

What then is an insane delusion? It is an idea, that is self-evident, and its origin is in subconscious cerebration. But it is more than this: it is strenuously defended, and, still more, it is believed by no one but the originator himself. This is a necessary and essential element. To be otherwise would destroy its character as a delusion, for no matter how peculiar, or erratic, or contrary to reason and judgment it may be, it is not an insane delusion if others believe. The originator of the idea must stand alone in his belief, for solitariness is the touchstone for an insane delusion.

Some of the greatest and most brilliant ideas of history were only saved from being delusions by the belief and acceptance of others. Mohammed, writhing in the throes of an epileptic fit, claimed that he held communion with God, and the great and all-wise Creator whispered in his ear and bade him reveal this sacred knowledge to the people. Here were all the elements of a delusion, but the people believed; they accepted these statements as true, and the idea that was born a delusion blossomed into a religion. Christ claimed to be the son of God—that he was born of the Virgin Mary and was the product of an immaculate conception. The Jews laughed him to scorn. He was rejected. Had no one believed, he would have been remembered—if remembered at all—as the originator of the most colossal delusion in all history. But followers came, and, although the idea crucified him, it still lives as an inspiration in youth, a comfort in manhood and a solace in old age.

Dowie believed and publicly announced that he was the reincarnated Elijah, and his enemies fancied they saw the beginning of the end, but no, his statements, however unreasonable and preposterous, were believed, and the idea which was born a delusion, bloomed into a faith. Not long ago one Schlatter appeared above the horizon. He claimed to be closely affiliated with God, and to possess all the grace and power of the Almighty for the

healing of disease—the lame, the halt, the blind—by the blessing of handkerchiefs and the laying on of hands; and he not only escaped the commissioners of insanity but prospered and profited thereby, for followers came by the score who believed that he could do all that he claimed. Later, the charm was dispelled; the believers fell away; Schlatter disappeared below the horizon again, and the idea reverted to the original condition of a delusion.

Consequently, owing to the gullibility and intensely morbid craving of the human mind for something new, and novel, and unusually peculiar, no one can say, with any assurance, that any proposition, however irrational, or absurd, or ridiculous it may be, will remain an insane delusion, for the delusion of to-day may be a fad to-morrow, and figure prominently in the creed of some new sect the day after; possibly to revert in later years to the original delusion.

This, then, is an insane delusion: an idea born in subconscious cerebration; projected into consciousness in times of stress; believed implicitly and strenuously defended by the originator, but which no one else will accept as true.

EXTRACTS FROM THE WRITINGS OF WILHELM GRIESINGER, A PROPHET OF THE NEWER PSYCHIATRY.

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INTRODUCTORY NOTE.—The affirmation that "science is common sense at its best" has no plainer vindication than the manner in which provision is made by Germany for the care of her insane. Nearly forty years ago the general German public as well as those afflicted with various forms of alienation were fortunate in possessing a man who was well qualified by his intellectual attainments, no less than by his own training for this special duty, not only to formulate a plan for the development of the systematic care of the insane, but also to indicate clearly the scope and the lines along which this work could be carried out with the greatest advantage to all concerned. Griesinger was thoroughly familiar with the remarkable advances that were being made in Germany in all branches of the medical sciences, and his daily life had brought him into immediate contact with the men who were creating a new epoch in the history of medicine. It is a significant fact that three men, Griesinger, Rose and Wunderlich, born within a few years of each other, living on the same street in Stuttgart, and all intimate friends, should have chosen medical careers and that each should have become famous in his own specialty. Each one of the three became in a measure the representative of a new school of medicine. Born in 1817, Griesinger began the study of medicine in 1834, at the University of Tübingen whence he moved to Zurich. In 1838, he first gave evidence of his interest in the study of insanity by making application for the position of assistant physician in the asylum at Winnenthal. From that time until his death, which occurred in Berlin in 1867, his enthusiasm steadily increased. His

studies in general medicine and the various positions which he held had an important bearing in determining his views upon the nature of insanity. In the introduction to the first volume of the Archiv für Psychiatrie und Nervenkrankheiten he makes it evident that his whole idea of the treatment of the insane was based upon the conviction that many cases of insanity hitherto regarded as hopeless were curable, provided that the institutions in which such patients were placed were suitably equipped to give them the appropriate treatment. It is but rendering bare justice to Griesinger to say that the well-equipped hospitals and the asylums for the insane, found in Germany to-day, are in large measure the outgrowth of the plans drawn up by him and the fact should be emphasized that this work could not have been successfully accomplished except by a man who not only had an intimate acquaintance with the general medical clinics, but whose own experience had also given him a practical insight into the needs of the mentally afflicted. In English-speaking countries the organization, as well as the construction of the institutions devoted to the care of the insane, are often planned by laymen or by medical officers who have had no particular training in psychiatry. As a result many of our own institutions bear testimony to the truth of Victor Hugo's affirmation that "Common sense is a very uncommon thing."

Griesinger pointed out again and again that before building an institution it was important to determine whether the hospital or asylum plan was to be followed. The two classes of institutions are as essentially different in their aims and organization as the general medical hospital is from the home for chronic or convalescent patients. In the organization of the hospital for the insane two functions are of prime importance and should overshadow all others.

(1) The maintenance and steady increase in the efficiency of the medical staff. This view is based on the humane idea that the insane need and should be accorded as skilled and highly trained physicians as are provided for patients in a general hospital.

(2) The resources of the institution should primarily be devoted to equipping the hospital buildings with every facility for carrying out the treatment of patients, along the lines indicated,

by those who are thoroughly familiar with the great advances made in clinical psychiatry.

The expense incurred by keeping up the extensive grounds, workshops, farm, etc.—all necessary adjuncts of the asylum—serves to defeat the purpose to which the hospital should be devoted. It is as undesirable as it is impossible to attempt to unite under one organization the features of the hospital and those of the asylum; one might as well attempt to combine in a general medical hospital the functions of the hospital with those of a home for chronic or convalescent patients. But it would appear that these warnings, published over thirty years ago, have not been sufficiently regarded, and our failure in the United States to observe this fundamental distinction has proved detrimental to the best interests of a large number of our patients. It is for this, as well as for other reasons, that a translation of two of Professor Griesinger's articles may still prove of interest. Many of the ideas contained in them will appeal to the alienist of to-day and his broad conception of the whole subject as well as his intimate knowledge of detail, cannot fail to be of assistance to those whose duty it is to administer the affairs of our institutions devoted to the care of the insane.

The essential differences in organization between the hospital and asylum may be summarized as follows:

HOSPITAL	ASYLUM
Accommodation for from 80 to 300 patients. Provision for continuous bed-treatment of 50 per cent of the patients. Nurses who have been trained in general hospitals. Conveniences for hydrotherapy, massage, the "Rest Cure." Turkish baths and tubs for bathing patients. Provision for the "continuous bath" in each ward. Diet kitchen. A training-school for Nurses. A relatively large medical staff—from 8 to 10 medical officers. Clinical, Pathological and Psychological laboratories. Library containing all the important Neurological and Psychological journals.	From 300 patients upward. Provision for bed-treatment for from 5 to 10 per cent of the patients. Amusement pavilion, large grounds, work-shop, farm, garden, etc. One central bath establishment. A few nurses and many assistants. A relatively small medical staff.

STEWART PATON.

PREFACE TO VOL. I., ARCHIV F. PSYCHIATRIE, BERLIN, 1868-9.

With regard to Psychiatry and its relations to the other fields of medicine, time has brought about a revolution which justifies the founding of a new organ of publication. This revolution is mainly due to the recognition of the fact that the so-called mentally diseased are individuals with disordered brains or nerves, and that to them we, as physicians, owe the same obligations as we do to all others afflicted with nervous diseases. Psychiatry and neuropathology do not represent two closely connected fields, but form one and the same domain, where all speak a common tongue and are ruled by the same laws. Only when they are dealt with as absolutely one can these fields be worked with success. With the recognition, therefore, of this fact the time has come for psychiatry to emerge, scientifically from its isolation as an ill-defined specialty, and practically from its condition as a narrow guild, and take its stand as an integral part and possession of the art of medicine as a whole and of all medical circles.

That this condition of affairs has not come about sooner; that the most extraordinary ideas have prevailed about psychiatry, its aims and even the questions with which it deals, among the vast majority of physicians; that this small realm of knowledge has been looked upon as foreign to science as a whole, is mainly to be explained by the special barriers by which it was shut in and by its isolation. Even until quite lately its peculiar position has, to a large extent, allowed it to deal with material, with which for a long time past it has not been permissible for any of the other domains of medicine to occupy itself. Thus, questions foreign to medicine, even the so-called philosophical problems, could be taken up as matters of prime importance; hospital conditions and details of management could be made the main subjects for research, and beyond all doubt genuine medical matters —such as those connected with diagnosis and therapy—were often relegated into the back-ground.

It is just because in many respects it is far removed from the ordinary thinkings and doings of the medical world that psychiatry appears so hard to the practitioner of medicine. Not but what he is right in this idea. Psychiatry is difficult, probably

the most difficult field of medicine—more difficult in my opinion than many alienists themselves seem to think. But very often the difficulties presented by it are sought for in the wrong place. They do not consist in the fact that for the study of psychiatry a certain quota of metaphysical knowledge is necessary, that philosophical questions become a subject of debate or that the artificial conditions of institution life—which impose upon the uninitiated only from a distance—must for the most part demand learned men to deal with them. Such is by no means the case. The principal difficulty encountered by the physician lies in the fact that pathological conditions in the nerve apparatus from which all without exception suffer who speak, behave or act as insane individuals, up to the present time have been only very imperfectly understood. And yet these must be diagnosed just like other nervous disorders, while as a matter of fact to-day the accomplishment of this task is a matter belonging rather to the future, or at most the problems are in the very first stages of their solution. When we consider with what diagnoses we are so often still obliged to content ourselves in dealing with the insane, but at the same time how few feel the necessity of breaking away from this confined and narrow standpoint, one cannot but long for the moment when at least all the means that are at present employed as helps to diagnosis in the rest of the domain of neuropathology will also be utilized for the benefit of the mentally diseased.

In our insane asylums is to be found only a part of these psychically disturbed nervously sick individuals, and of these again a certain number—nay most of them—show only the most extreme manifestations or often the terminal stage or residua of the primary disease. These individuals are generally recognized as the insane *par excellence* and are regarded by many as exhibiting a special genus of disease; or indeed as representing a class of men wholly apart from any other. And yet, despite this general opinion, in our general hospitals and in the ordinary routine of every day private practice, nay even in the world of healthy men, are to be found thousands of individuals afflicted with nerve disturbances, whose psychical reactions and temperament have already undergone grave changes and whose condition can pass through numerous, indefinite stages into one of genuine

mental disease. The more one observes such facts, the more plainly does it appear how artificial is the distinction which has hitherto obtained between psychoses and the rest of the so-called nervous diseases; what a matter of indifference it is whether we say that an individual is sick in his mind or sick in his nerves. In short we shall appreciate how superficial is our whole conception of mental disease.

It may not be out of place to make a few remarks upon the most common neuropathic conditions, which suggest themselves to us with reference to the mentally diseased.

In reviewing these conditions it is possible to divide them into certain main groups or classes. A considerable number of these neuropathic conditions as yet cannot be described at all from their pathological anatomical standpoint; nor even from their symptomatology is a concise or fundamental explanation of them possible. Their pathogenesis, or at least their etiology, however, is somewhat better known. They can be designated as constitutional neuropathies. Under this term, however, are not included those nervous diseases that depend upon constitutional dyscrasias—syphilis and the like. What I mean is that there is a constitution, as regards the functioning of the nervous apparatus, just as there is a constitution connected with the functioning of the digestive apparatus—and yet for neither the one nor the other does there exist a single definite anatomical sign.

Habitually—through long periods of time, often throughout the whole of life—the nerve apparatus of such individual functions in a manner wholly unlike that of the majority of normal men. The usual symptoms of nerve weakness, of irritability and a readiness to become exhausted give only a very limited idea of the immense multiplicity of the manifestations. This constitutional condition can be acquired through unfavorable influences in the course of life, or can be created as a result of other previous disorders. Much more often, however, it is congenital, handed down by the forebears and shared by the whole family. In these individuals the symptoms belong at times more to the sensory, at times more to the motor, at other times, again, more to the psychical domain; and not rarely to two or three at once. Innumerable cases of nervous disorders of every kind, neuralgias, hysteria, epilepsy, various forms of spasm and para-

lysis belonging to these conditions depend upon constitution and fundamentally upon an hereditary basis. Innumerable also are the individuals, in whom as a result of this fundamental weakness, exist mild forms of psychical anomalies, the true significance of which can be appreciated only by the expert, whereas among their fellow-men such persons are generally put down as eccentric, hypochondriacs, bizarre individuals, curious personalities or sometimes perhaps pass for geniuses. But when one comes to look at the parents and brothers and sisters of these individuals; when one observes the marks of degeneration that appear in their general bodily make-up, the shape of their heads, their physiognomy, their eyes and ears, the dissimilar working of the facial nerve on the two sides and the like; when one comes to learn of their numerous abnormal sensations, migraines, attacks of vertigo, their abnormal sexual functionings, their totally different reaction to hygienic, medicinal, nay even to atmospheric influences —when one takes into consideration all these points, one must perforce recognize that in such individuals there exists a firmly established, far-reaching and deeply rooted factor in their neuropathic condition and will estimate at its true value the existing constitutional basis in all diseases no matter although to all appearances they may occur as accidents.

These individuals contribute a very large contingent to the insane asylums. They readily yield to extraneous influences. The storms of life and the disillusions of the world, the loss of loved ones, disturbing causes of various kinds, work havoc with their psychical organization. The epochs of development and of the most important bodily functionings which belong to the sexual life, puberty, marriage, pregnancy, child-birth, the involution period, become for them critical in a peculiar sense. Thus we speak of a sexual, a puerperal, a climacteric insanity and the like—of periodic mania, etc. But quite analogous to these, and induced by similar exciting conditions, are neuralgias, paralyses, convulsions of any and every form. These depend just as little upon palpable changes, and are as obscure in their causation, provided that we have not taken into consideration the constitutional element in the particular case with which we may be dealing. That man will best be able to judge of these conditions that have so eminent an importance for psychiatry, who

not only observes the psychical sufferers of this kind even in their mild disturbances outside the insane asylum, but who can also find objects for frequent study in their kinsmen in suffering—the nervously disordered—whose maladies depend upon the same basis.

To a totally different pathological category belong many nervous diseases associated with psychical disorders, which can be recognized as topical diseases having a definite pathological basis. Here belong the cases of so-called ordinary brain diseases, accompanied by dulness or aberration of the intellectual faculties, tumors, the sequelæ of apoplectic or embolic processes, the large group of senile cerebral changes dependent upon a greater or lesser degree of vascular degeneration, etc. About these easily explicable conditions nothing further need be said here. But to this large group belongs, according to the standpoint of our present knowledge, also that extensive array of diseases which are included under the name of paralytic mental disorders. In all these patients are to be found definite morbid processes in the central organs, often of a decidedly progressive character. Conditions of motor weakness, tremor and paralyses, etc., are seldom absent. So far as the existence of these is concerned the hereditary element plays a minor rôle, accidental causes, exercising their influence upon the nervous apparatus, being more effective. These disorders share in the bad prognosis belonging to all organic diseases of the central apparatus. Is it necessary to adduce any further proof that our knowledge of them is still one-sided and faulty than the fact that they are not studied in close connection with all those other organic disorders and that the relation between all is not constantly kept in view. Such observations can, of course, be made only outside of the asylum and the more these lines are followed the better the prospect for real progress.

Finally, there are so many pathological cerebral conditions associated with psychical symptoms of a more accidental kind and often in their nature merely transitory. Thus as a result of toxic causes (as for instance in delirium tremens), as a result of simple congestive processes, of previous acute disorders, losses of blood, over-strain or intense emotions and the like, we have conditions of which only the worst and most persistent can come

under observation in the insane asylum. An intelligent comprehension of these also—the relatively mildest and most favorable of the so-called mental diseases—will be very much facilitated by observations of the general practitioner, since into his hands come the milder and more transitory phases of this kind and the first stages.

From this brief review—necessarily somewhat imperfect—the intimate connection between the psychiatrical and the ordinary medical observer and the necessity of the association of the two in their scientific work becomes apparent. Moreover, the views which have been evolved within the insane asylum with respect to the object of the researches made there, and which now pass for "psychiatry," become to him who has once convinced himself of these truths, no longer far-reaching, comprehensive or the only ones that need be considered, even when their value is fully appreciated.

The consequences of this standpoint which I have here pointed out only in reference to the pathological side, must surely bring forth profitable fruits in all other directions as well. In the light of the unbiased, broader views, not obscured by the doctrines of any school, which is afforded us by the neuropathological standpoint, many great practical questions of psychiatry will appear in a totally different light. Our prognoses and our therapy—we have already spoken of diagnosis—the problems with regard to the public care of the insane, the important questions of forensic medicine, which so loudly call for reconsideration, although perhaps for a long time to come we cannot look for their satisfactory solution—in all these maters I am convinced we have much to hope for in the more intimate association between psychiatry and the rest of neuropathology.

One of the main objects of this journal will be to work this common domain in every possible way; above all by exact observation and positive studies. Every genuine expert contribution to any one subject furthers the main object of the whole domain. I trust that those who are working and striving for the same object will join with us and afford us their assistance.

(To be continued.)

EXAMINATION OF THE GENERAL CEREBRO-SPINAL FLUID IN GENERAL PARALYSIS.

By JOST D. KRAMER, M. D.,

Interne, Butler Hospital, Providence, R. I.

Among the many secretions and excretions of the insane subject to chemical and physical examination, the cerebro-spinal fluid has been somewhat neglected.

It has been found in general paralysis there is an augmentation of the number of white blood corpuscles which, according to Joffroy and Mercier,[1] is a constant sign and valuable aid in the diagnosis of this disease, especially when the physical or mental symptoms are not characteristic. In their report of seventy punctures upon forty-eight general paralytics, it was found that sixty-six showed a decided increase in the number of leucocytes, while the remaining four varied between 0 and 5 per cubic millimeter. Three of the four exceptions (two in one case and one in another), the writers claim from a practical standpoint, should be excluded, since the evolution of both cases extended over an unusual number of years and warrant their being considered in a special category. The fourth case showed an absence of leucocytes, but the puncture was made only a few days before death and was not repeated. Besides the above cases they found that four cases of tabes dorsalis with mental confusion showed an increase in the number of leucocytes up to 5 per cubic millimeter, and in one case of syphilitic syringomyelitis, with Argyll-Robertson signs, the leucocytes were abnormal.

The cases in which the cerebro-spinal fluid was normal as to leucocytes, that is, varying between 0 and 2 cubic millimeter, were variously diagnosed as follows:

[1] The Journal of Mental Pathology, Oct.-Nov., 1902.

Ten cases of dementia præcox, fourteen cases of alcoholism, three cases of mental confusion, two cases of acute mania, one case of cerebral softening, hydrocephalus, epilepsy, cerebral syphilis cured of syphilis and epileptiform attacks of albuminuric origin.

The augmentation in paresis they found often to precede the disturbance of speech and pupillary phenomena with a greater leucocytosis in the begining stage where the diagnosis is more difficult.

From one hundred and twenty punctures upon ninety-one patients, the results were so consistent that they considered themselves able to exclude general paralysis upon the absence of leucocytosis, and if the number of white blood corpuscles were found to be above normal, they were justified in diagnosing this disease, providing that tabes dorsalis and syphilitic affections of the brain and cord might be excluded.

Following in the footsteps of Joffroy and Mercier, I have made a study of twenty-nine cases, and the following results were obtained:

In eleven cases of general paralysis in which the corpuscles were counted, the figures were as follows: In five cases the number varied between 5 and 25; in four cases between 25 and 60; in two cases the count was 129 and 145 respectively.

Thirteen cases of dementia præcox showed eight cases in which no leucocytes were found; 1 leucocyte per cubic milimeter in each of four cases; and in one case 2 were found.

Cases of Huntington's chorea, epilepsy, pseudo-diabetic tabes, melancholia and chronic alcoholism also showed negative results.

In regard to the specific gravity in the above cases, it was found to be higher in the general paralytic cases, varying between 1010 and 1012, while in the other cases the specific gravity was normal 1008, with the exception of the case of pseudo-diabetic tabes, in which it was 1010.

Less than .05% albumen was present in all cases, with the reaction of the fluid slightly alkaline.

The operative technique is as follows: The patient is seated upon a chair with his hands resting upon the thighs. In cases where it is impossible or inconvenient to operate in the sitting posture, it has been performed with the subject reclining on

the side with the thighs strongly flexed. The lumbar region is prepared with the usual antiseptic precautions, and the part sprayed with ethyl chloride. A canulated needle, three inches in length is inserted into the interspace between the fourth and fifth lumbar vertebrae a little to the right of the median line. Upon entering the canal a diminished resistance is recognized, and immediately the fluid will be seen issuing from the canula. The fluid is then collected into a sterile test tube, the amounts varying between 15 and 35 cc.

The patient shows very little discomfort at the time of the operation and no serious symptoms have followed this procedure in the above cases.

The estimation of the number of white blood cells is made with a Thoma-Zeiss counting slide, in which twenty or thirty fields are counted, each containing sixteen large squares, and the total number found in ten such fields, represents the number of leucocytes per cubic millimeter.

It has been found that mania, mental confusion, melancholia, alcoholism and neurasthenia simulate general paryalsis in the early stage, from which, by means of lumbar puncture, these psychoses are differentiated. By this method one is able to make an early diagnosis without waiting for the evolution of the disease.

The following instance is cited as one in which it was practically impossible to make a differential diagnosis between manic depressive insanity and the begining stage of general paralysis, and the lumbar puncture solved the problem: A man fifty-five years of age, alcoholic, upon admission was found to be in a state of mental and motor activity, his behavior being of the playful variety and the intellectural processes of the flighty type common to mania. Memory good for past and recent events. Comprehension and recognition of surroundings on the whole excellent. Orientation as to time and place perfect. Expression of delusions of grandeur transitory. There was nothing in the physical signs suggestive of paresis except exaggerated knee-jerks and coarse tremor of tongue. Lumbar puncture was performed, and a leucocytic count of 32 was obtained. Later this patient exhibited multiple delusions of grandeur, vivid hallucinations, marked impairment of consciousness, disturbance of

coördination and the characteristic handwriting of a paretic, all these signs tending to confirm the diagnosis previously made in accordance with the results of examination of the cerebro-spinal fluid.

It will be seen that these results confirm the experience of Joffroy and Mercier. These observers are of the opinion that in all cases of suspected general paryalsis we should not hesitate to avail ourselves of the valuable aid furnished by an examination of the cerebro-spinal fluid. As lumbar puncture does not appear to have been practised elsewhere in American institutions with this object, I have ventured to present these few cases in the hope that others may be induced to embrace the occuring opportunity to give certainty to diagnosis in doubtful cases.

THE RESULTS OBTAINED FROM LUMBAR PUNCTURE ARE HERE TABULATED IN DETAIL.

Diagnosis.	Leucocytes per cmm.	Amount Obtained.	Sp. Gr.	Character of Flow.
General Paresis	6	20 cc.	1.010	By Drops.
General Paresis	13	30 cc.	1.010	By Drops.
General Paresis	16	30 cc.	1.010	Continuous.
General Paresis	22	30 cc.	1.010	Continuous.
General Paresis	25	25 cc.	1.010	Continuous.
General Paresis	30	30 cc.	1.010	Continuous.
General Paresis	32	30 cc.	1.010	Continuous.
General Paresis	35	20 cc.	1.010	Continuous.
General Paresis	60	20 cc.	1.010	Continuous.
General Paresis	129	30 cc.	1.012	Continuous.
General Paresis	145	25 cc.	1.010	Continuous.
Dementia Præcox	0	25 cc.	1.008	By Drops.
Dementia Præcox	0	15 cc.	.....	By Drops.
Dementia Præcox	0	20 cc.	1.008	By Drops.
Dementia Præcox	0	30 cc.	1.008	By Drops.
Dementia Præcox	0	30 cc.	1.008	Continuous.
Dementia Præcox	0	30 cc.	1.008	Continuous.
Demdntia Præcox	0	30 cc.	1.008	By Drops.
Dementia Præcox	0	25 cc.	1.008	By Drops.
Dementia Præcox	1	25 cc.	1.008	Continuous.
Dementia Præcox	1	25 cc.	1.008	Continuous.
Dementia Præcox	1	30 cc.	1.008	Continuous.
Dementia Præcox.	1	25 cc.	1.008	By Drops.
Dementia Præcox	2	30 cc.	1.008	By Drops.
Huntingdon's Cholera	0	30 cc.	1.008	Continuous.
Epileptic Insanity	0	20 cc.	1.008	By Drops.
Melancholia	0	30 cc.	1.008	Continuous.
Chronic Alcoholism	1	25 cc.	1.008	Continuous.
Pseudo-Diabetic Tabes	0	35 cc.	1.010	Continuous.

HOSPITAL PROVISION FOR THE INSANE CRIMINAL.[1]

By H. E. ALLISON, M. D.,
Matteawan, N. Y.

The expression "The Insane Criminal," in the popular sense in which it is generally accepted, is somewhat of a misnomer. Usually it is considered to embrace all classes of the insane who commit acts of such a nature as to bring them within the purview of the criminal law. An offense committed by an idiot, an imbecile or insane person is not, however, a crime. Such persons may be dangerous but cannot properly be regarded as criminals.

It is necessary, however, that the existence of mental defect or derangement should be determined by a court of criminal jurisdiction before a person can be considered irresponsible. Consequently, all offenders, who for the time being are charged with crime, must in one sense be looked upon as criminals, and when insanity becomes associated with unlawful acts the words "insane criminal" have a universal and well-established conventional meaning. There is a decided difference, however, between one who commits an act foreign to his whole character and to his moral nature, and another whose act springs from criminal motives and is in accord with a career of viciousness and depravity, but upon whose life insanity becomes subsequently engrafted as an acquired condition. The former are usually impelled by stress of disease to yield to impulses which often torture them, but finally become imperative and irresistible. The latter have no such scruples.

There are, then, more consistently speaking, two distinct classes of the mentally deranged included in the category of the insane criminal: First, those whose crime is the offspring of disease—they are insane offenders. Second, those who have been con-

[1] Read before the American Medico-Psychological Association, at Washington, May 12-15, 1903.

victed of crime and are subsequently found to be insane while undergoing sentence. Such persons may with propriety be termed insane convicts. The insane offenders are those who have committed some criminal act while in a state of mental disease, whose insanity has been recognized and who have not been tried because of such mental derangement. When such persons are brought to trial before a jury, as they occasionally are, and the existence of insanity is made an issue, they are usually acquitted upon that ground. If at the time of such trial and acquittal their insanity continues and they are found unsafe to be at large, the court consigns them to a hospital for the insane, to remain therein until recovery. In most instances, the mental condition of these prisoners is so evident and their derangement so pronounced that a jury trial is deemed inadvisable and a commission is appointed by the court or referees are named to inquire into their condition; or the court itself may hold an investigation to determine the question. These individuals, if adjudged insane, are committed by order of the court to asylums, and upon recovery are returned to the custody of the courts presumably for trial, but in the majority of instances are released without further formality. This division of criminal offenders constitutes the unconvicted insane. The phrase "The Criminal Insane" therefore embraces two classes, the convicted and the untried or unconvicted. There is a broad distinction between the two. Insane convicts comprise a large number of persons whose proclivities are naturally of a criminal order, many of them being habitual offenders. Their acts are not the result of mental disease or prompted by the delusions of a deranged mind; their insanity is a supervening condition which has no connection with their crimes. They are the inmates of our prisons, penitentiaries, reformatories, houses of refuge, jails and other penal institutions. Many of them have served several terms. They constitute a substantial portion of the "rounders" or recidivists of the prison population. Physically, mentally and morally, as a class, they are below the average man. Large numbers of them are degenerates. These are not distinctly imbeciles but manifest numerous defects of development so that many of them from the first are handicapped in the struggle for existence. They are often subject to periods of transient mental derangement which are produced by causes which would not ordi-

narily affect a healthy constitution. Their mental capacity is limited, not alike in all instances nor in all directions; but in different ways. Heredity and environment are both important factors. They are poorly educated and are unfitted to acquire either useful knowledge from books or to take advantage of opportunities afforded by manual training in the trade schools. They are depraved morally, given up to vicious practices, decidedly lacking in ethics and easily influenced to do wrong. When such a person is once declared insane, his insanity is so mixed with degeneracy that often he is not fit for discharge at the expiration of his term of imprisonment even though the activity of his mental disease may have subsided. A very few insane convicts belong really to the unconvicted class; that is, their crimes have been the result of mental disease. They have been unjustly convicted of unlawful acts for which they were not responsible. Insanity may have been the ground of their defense and failed before the jury which tried them. Such individuals often fail to recover and consequently they are unfit for release upon the expiration of the term for which they were convicted. The crimes with which they are charged are, as a rule, of a serious nature, such as murders and assaults to kill. Popular prejudice is so strong against them at the time of their trial that the plea of insanity is regarded often as a subterfuge and fails of establishment. The public does not appreciate the fact that a verdict of insanity and commitment to an asylum in most cases would entail a longer period of confinement than conviction and a sentence which ensures, as a rule, only a brief term in prison.

The forms of insanity developing among men in confinement undergoing sentence are different in character from those usually found among the ordinary insane. The active forms of acute mania are not common and the most frequent mental symptoms, aside from those associated with degeneracy and imbecility, are those related to melancholia or chronic mania, with ideas of persecution prominent in each. Under the regular régime of hospital life these symptoms subside in a measure, although there still remains an atmosphere of suspicion and distrust which is productive of irritability and ill will. Assaults to do bodily harm are likely to be planned and to be carried out. Delusional ideas that the patient is aggrieved or injured breed an inclination to take

revenge for imaginary wrongs. A considerable number of the inmates of our prisons, reformatories, penitentiaries and other penal institutions are annually found to be insane while undergoing sentence. In many the seeds of mental disease have been sown before admission. Heredity, dissipation, deprivation and vicious habits have been contributory as causative factors in its production. Insanity in many cases has existed before commitment, but has been unrecognized. The State hospitals for the insane are not proper receptacles for these cases but in most of our smaller States it is the only provision that can be made. When their insanity becomes evident in prison, their terms of imprisonment are still incomplete and during the continuance of such terms and usually for a long time subsequently they need secure custody. If such persons remain insane, it is not wise to keep them in prison to be released when their terms expire, and consequently they must be placed where they can be detained until recovery takes place or their mental condition becomes so modified and improved as to permit of their being cared for by friends who will undertake to provide for them safe custody and proper maintenance, provided that they are reasonably safe to be at large. Special hospitals, therefore, have been erected in some States for the care of these insane convicts. Obviously it is of importance that the prison physician should be alert to discover the existence of insanity among prison inmates and, when it arises, to commit them to a hospital for the insane rather than to ignore the existence of these cases in prisons and allow these individuals to remain there to be turned loose upon the community at the expiration of their terms. Herein is made plain the necessity for the existence of the special hospital. The establishment of such an institution, in the nature of things, must result in the indefinite detention of many insane persons with dangerous delusions who otherwise would be set at large. It is desirable that such a hospital should be separate from the prison, not of necessity far removed, but under the management of an independent head who should be a physician experienced in the care of the insane. If the institution is designed to care for the unconvicted insane as well, it should be still further removed from proximity to the prison and be wholly disconnected therefrom. The retention of insane convicts in prison imposes anxieties and burdens upon

prison wardens and interferes with discipline. Such individuals are not amenable to ordinary methods of correction and are turbulent and unruly. Their presence embarrasses the proper administration of schools of letters and of those for manual training. Many of them are homicidal and dangerous both to themselves and others. They introduce an element of great risk in the prison population where the inmates have access to tools and instruments which may easily be converted into weapons of offence. The result is that the insane, if troublesome, are locked in cells for the refractory and often left without care and without oversight. The wretched conditions found in some county almshouses before the adoption of State care is often paralleled and has led to official investigations both in the prisons of this country and abroad. To retain such individuals is unjust to the convict himself, who is entitled to be provided for as are other citizens; that is, he should have hospital care if in need of it, or proper custody where custody alone is required. The insane, the epileptic with maniacal paroxysms, and the imbecile, should for the sake of proper reformatory work, if nothing more, be taken out of the prisons. They can serve their terms just as well in a hospital for the criminal insane and when they have done so, if they are reasonably fit to go at large, they can be released; otherwise they can be indefinitely detained.

Convicts should not be committed to ordinary hospitals, if the provision of a special institution is practicable.

Friends of patients in the general asylum for the insane are unwilling to have them associate with convicts who are often vicious and depraved. At the present time these asylums aim to be hospitals in fact as well as in name. Open doors and absence of visible restraint and the semblance of home life is the end to be sought. The manner of their architectural construction and their method of management does not fit them for the criminal insane. To introduce, then, an element of population which requires locks and bars, where every effort is being made to discard them, is taking a step in the wrong direction. The criminal element is inclined to be a turbulent one. They are naturally at variance with law and order and impatient of restraint. Their delusions also render them suspicious of those around them. They are apt to harbor delusions of persecution and to hold the hospital

authorities responsible for their unjust detention. Some separate place of safe custody should therefore be provided where all the convict as well as the dangerous insane can be housed.

There should be, however, in all large States, a flexibility of the laws so as to permit the ready transfer from the criminal asylum to the general insane hospital of convicts who are not habitual criminals, whose terms have expired and who are thought proper cases for such transfer. Many cases become quiet and inoffensive with lapse of years and subsidence of disease or the supervention of dementia. No individuals undergoing sentence should in any event be transferred, but only suitable examples from the list of term-expired convicts. For instance, persons of previous good character, whose crime has been the product of mental disease and who have been wrongly adjudged guilty by the courts might be proper cases for transfer, such action being dependent upon their history and the absence of dangerous delusions.

The courts are often too indifferent concerning the mental condition of persons charged with crime who may be brought before them, and conviction follows without any investigation into the mental condition or antecedents of the culprit before the bar. Numerous cases occur yearly of commitments to prisons of persons upon whom the stigma of a convicted felon should never have been placed.

There should also be an opportunity afforded for the transfer to the criminal asylum, from the State hospitals, of all persons with criminal dispositions and histories or who have previously been inmates of penal institutions or of a criminal asylum, provided that they possess vicious tendencies and are of the criminal class. Homicidal and dangerous individuals should also in like manner be transferred. The chief object in the erection of a hospital for insane criminals would be to free the penal institutions from all insane convicts, and secondly to relieve the other hospitals of the criminal and dangerous insane. Hospitals of this character are now in operation in the States of New York, Michigan, Massachusetts, Illinois and North Carolina.

An attempt has been made in some States to provide for the criminal insane by the erection of special wards in connection either with prisons or with hospitals for the insane. Both methods have their advocates, but the results obtained in either case are

not considered satisfactory. Where institutions have one or two wards of this kind, the numbers contained in each must necessarily be few and consequently there cannot be a proper classification of the inmates. The closer degree of custody and other forms of restraint which must be exercised are in sharp contrast with those in use in other portions of the hospital. There should therefore, if possible, be a separate and special hospital for the convict and criminal insane. Few States have a population of insane criminals—the convicted and unconvicted—large enough for the maintenance of a hospital for each, so that, as a rule, it will be necessary to combine the two classes. With a flexibility in method of transfer from the general hospital to the special one and *vice versa,* substantial justice would be done to all interests and safe custody be assured.

As a result of the transference of cases of insanity from the penal institutions in the State of New York to Matteawan, and detaining there beyond the expiration of their terms those unfit to be at large; and further by receiving court cases, the State asylum for insane criminals far outgrew the limits of the new and enlarged buildings opened in 1892 for the custody of this class. The accumulation of patients detained over time, at the Matteawan State Hospital, soon became of large proportions and helped to crowd the institution. The population finally grew to 765 and was fast increasing when opportunity was taken of the need for new buildings to create a division between those convicted of serious crimes—felonies—and those insane but unconvicted. In the latter division were also included those charged with minor offences, as well as all females. New York, therefore, has now two institutions, one for male insane convicts convicted of felonies and the other for court cases, and for those who have committed petty misdeeds. In both institutions patients are detained over time if unfit to be at large, when their terms expire. At the time of our greatest overcrowding, as a measure of relief, the State Commission in Lunacy transferred a large number of term-expired convicts to the State hospitals. These hospitals protested against receiving them and often absolutely declined, stating they had no vacancies for their reception. By order of the State Commission in Lunacy, however, the general State hospitals relieved us, under protest, of many such patients at the time of our great-

est overcrowding. There are to-day, in the State of New York—in Matteawan, Dannemora and the general State hospitals—probably over three hundred and fifty such cases.

As we have stated, it is a serious evil to allow the insane to remain in penal institutions and to be liberated at the expiration of their terms. It is also undesirable for the convict insane to mingle with the ordinary insane; hence a separate asylum for their custody becomes desirable, where they may be indefinitely detained, so long as their conditions require it. A large proportion of these people are dangerous either to themselves, to property or to others.

Medical officers in connection with prisons should be qualified to detect cases of insanity and should examine all inmates with a view to determine their mental condition. Many convicts are afflicted with insanity in prisons, whose mental state is never recognized, or at least not acknowledged, and who suffer from consequent lack of the most ordinary care and treatment. It should be a mark of discredit to a penal institution that it never commits an inmate to a hospital for the insane. Such inmates are surely to be found in every prison and an omission to certify to their mental condition and to transfer them to an asylum, implies either lack of proper oversight or wilful neglect on the part of prison physicians and officers. If, upon examination, only a few, or even should large numbers be found to be deranged, the prison ought not to be considered as responsible for having made them insane. The family record may reveal that mental disease has affected brothers or sisters or close relatives. Their own history will often show that before conviction such individuals may have been inmates of some hospital for the insane. Heredity, early environment and evil habits play a much more important part than the severity of penal discipline. The prison authorities often hesitate, however, because it is feared that a stigma may be placed upon the institution if it becomes known that insane persons are found therein. On the contrary, they are morally accountable if they continue to allow insane men to remain in prison whose proper place is in a hospital.

A resolution of the Medico-Psychological Association was presented to the National Prison Association at its Annual Congress, held at Indianapolis in 1898. This resolution recommended that

better facilities be afforded for the detection and segregation of all of the insane coming into the custody of the prisons of the United States. Action to this end should be regarded as a measure of general public interest. If, as a matter of government policy, the insane are to be cared for by the State or even by the counties, then the dangerous and the criminal insane should at least be provided for in some place or home where their safe custody would be assured not only during the period for which they were sentenced but beyond that time and for any subsequent period during which they are unsafe to be at large. The predominant object to be attained is the protection of the community, while incidentally medical treatment and care are provided for the individual.

There is another aspect of the question of caring for the insane in prisons which has become a matter of importance. Criminals are a great burden upon the community everywhere. Many of them are of alien birth and many others are of foreign extraction. Congress has recently enacted measures amending the restriction of immigration of the defective classes, which interposes a bar to lunacy and crime coming to us from foreign lands. America has long been a refuge for persons of this class. Some of them come of their own volition; others are assisted by members of their own family, by prison associations, by benevolent and other societies and at times by municipalities. Some of these immigrants are habitual criminals; others, who are poorly equipped mentally, soon become criminals. Numbers of such cases have come directly under our own notice. Discrimination is required to sift from prisons all such inmates, particularly degenerate examples of European origin. An important feature of the new law is the extension to three years of the period of probation during which insane or criminal aliens who have landed in contravention of our laws, may be returned to their native countries. This feature of the act affords opportunity for investigation into the mental condition and the antecedents not only of inmates of prisons but of all institutions for the defective, dependent and criminal classes. Provision is made by which the government may from time to time obtain information from the officers of penal, reformatory or other institutions concerning aliens in their custody. Agents in the government service may be detailed to secure facts from such

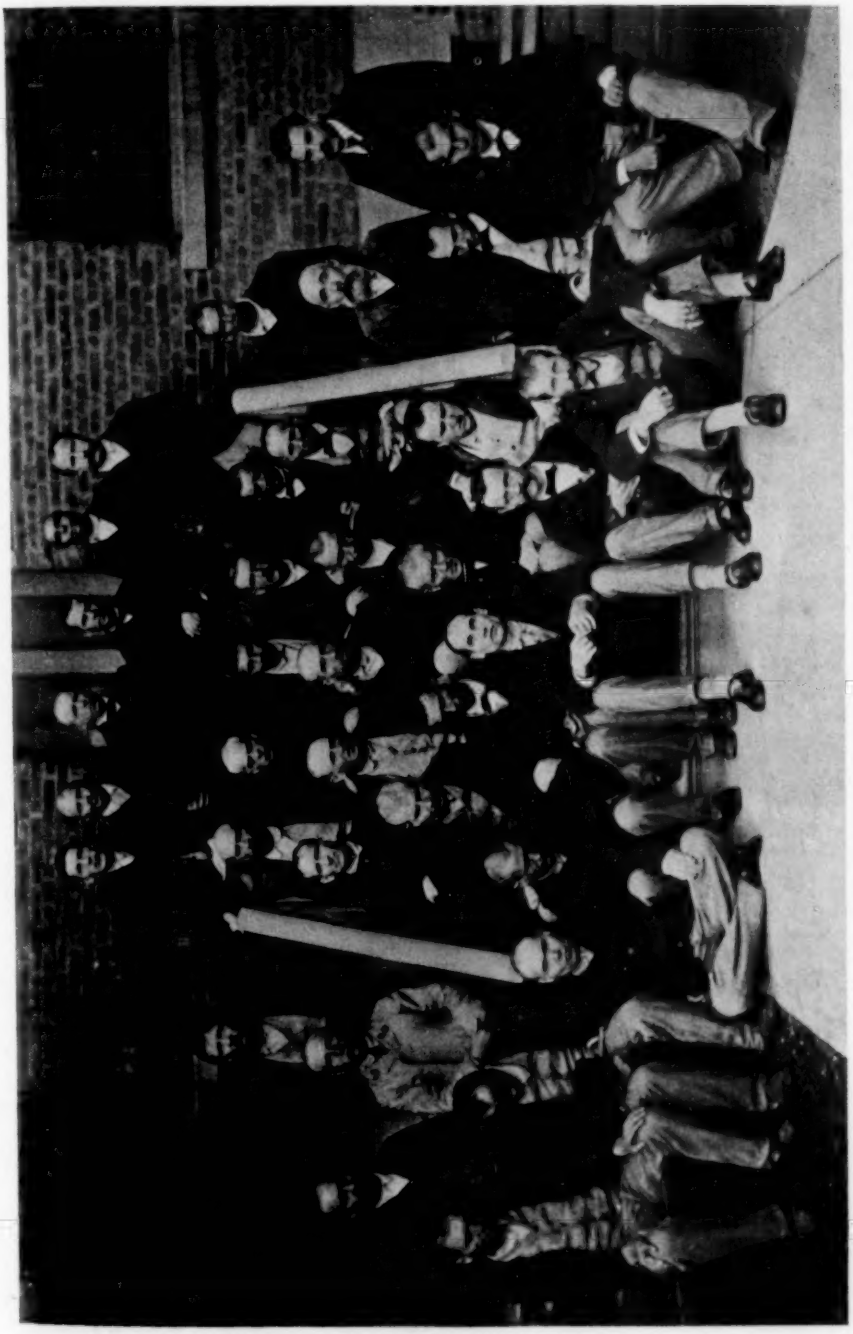
institutions through which the enforcement of this law may be facilitated. Wardens and superintendents are to be instructed as to the provisions of the immigration law relating to the detection and deportation of all insane, defective and criminal aliens. One glance at the inmates of any correctional institution for adults will show the presence of degenerative types, many of whom are of alien birth.[2]

There is much discussion everywhere at the present time upon the subject of degeneracy and crime. The two are very often closely connected. The public mind frequently becomes stirred to wrath by the occurrence of dreadful acts of criminality, and remedies are suggested by experience which tend more and more toward the final accomplishment of remedial measures. Our prisons should be placed in a position to do the best work for the reclamation of every individual susceptible of being helped. They should be relieved of all imbeciles, epileptics, idiots, paranoiacs and insane inmates. Penal institutions should be educational and reformatory for the first offenders and custodial for the habitual criminal. It is impossible to do good work in the first direction unless greater attention is paid to the needs of the individual. How can any benefits result from prison discipline unless the character of each inmate is known. If the prisons and reformatories are to accomplish anything of lasting good it would seem that there should be an oversight of those committed to their care sufficiently thorough to discover the existence of mental disease.

Even considering prisons as mere places of detention without any purpose to educate or reform, they have no power to retain dangerous criminal lunatics beyond the date fixed for their discharge at the expiration of their sentences. Such cases should therefore be brought to the notice of the courts and upon an order based upon a medical certificate these individuals should be committed to a special hospital for the insane, in which they should be detained until they have recovered or at least have become reasonably safe to be at large.

We would, therefore, in the first place, urge greater vigilance

[2] We herewith present photographs showing two groups of such cases at the Matteawan State Hospital. One is composed of Russians and Poles, or natives of Central Europe, the other exhibits a group of Italian inmates.



RUSSIANS, POLES OR NATIVES OF CENTRAL EUROPE AT MATTEAWAN STATE HOSPITAL.

upon the part of prison officers to detect the existence of insanity among convicts serving time. Secondly; the erection, where practicable, of special hospitals for the criminal and dangerous insane; and the commitment thereto by judicial order of all belonging in this category, where they can be kept in safe custody until they are fit to be released. Thirdly; in all institutions for the care of criminals and for defectives of every class the exercise of greater vigilance in ascertaining the personal history of each inmate with a view of detecting and deporting all aliens who may have entered this country in a violation of our immigration laws.

ADDRESS DELIVERED BEFORE COLUMBUS, OHIO, ACADEMY OF MEDICINE, JUNE 30, 1903, UPON THE OCCASION OF THE DEATH OF DR. A. B. RICHARDSON.

By H. C. RUTTER, M. D.

It seems fitting upon this melancholy occasion that some words be spoken in addition to the formal resolutions which have so well conveyed to the world the esteem in which Dr. Richardson was held by this Academy.

Having for a time sustained a very intimate relationship with Dr. Richardson, I feel that I should embrace this opportunity to add my individual mite to the great mass of testimony showing his worth as a man and value to the world as physician and executive officer, both in making provisions for the care of the insane and their treatment.

For a time we were associated together in the management of the Athens Hospital for the Insane, sustaining the relationship of superintendent and assistant physician. We lived in the same house, ate at the same table, enjoyed the same recreations and social pleasures, and largely shared the same responsibilities of management. It was an epoch, marked in the history of asylum management in this country, and the forerunner of the present liberal treatment of the insane. There, for the first time, all mechanical devices for restraining the insane were thrown aside and Dr. Richardson, although then an assistant, was one of the most valuable aids in the successful accomplishment of that system which is now almost universally adhered to. When I left Athens to assume charge of the Columbus Hospital for the Insane, Dr. Richardson succeeded me as superintendent, and after an interval of some years, again followed me as superintendent of Columbus Hospital. It is but natural, therefore, that I should have watched his career with much more than ordinary interest, and so became quite familiar with his social and professional character. I have

also met him frequently in the courts as a medical witness, sometimes on the same side but frequently opposed to him. Perhaps no better idea of a man's character can anywhere be more clearly obtained than in a court room, when he is subjected to a long and shrewd cross-examination by a brilliant attorney. It displays the strong and weak points of his character fully.

I do not know of any word which so fittingly describes his mental, moral and physical character as the word "sturdy." He was strong, forceful and determined. No lawyer could shake him out of the position he had assumed, or cause him to waver a hair's breadth from an opinion he had expressed. He was physically strong, and his physical strength seemed in exact proportion to his mental and moral vigor. This purposeful power he brought into action in everything he attempted. No matter how trivial the employment might be, he exhibited the same earnestness of purpose and the same determination to succeed that was so conspicuously marked in his professional career. The deep set eye, the wrinkled brow, the thoughtful, serious expression of his face, marked him in all things as an intense, earnest, determined man. He had a very convivial nature too, and enjoyed wit and humor to the very fullest extent, but even his sunniest smiles and loudest laughter never quite obliterated the earnest, thoughtful expression. He had exactly the same wrinkles of forehead and the same depth of orbits which so characteristically mark the pictures of Darwin and many other of our deepest thinkers.

His medical attainments were well known to you. You honored him as highly as it was possible for you to honor any man, by calling on him to preside over your deliberations, thus putting the stamp of your approval on his character and professional attainments.

As an executive officer he displayed rare judgment, and here his firmness of character, and earnestness of purpose, were exhibited to the best advantage. His conscientious fidelity to duty, combined with an intelligent energy in the discharge of duty, and unswerving honesty, won for him the absolute confidence of his official superiors and the respect and admiration of the public.

To him more than all others combined is the State indebted for the new and magnificent hospital at Massillon, Ohio. While yet superintendent of the Columbus State Hospital he planned and

supervised the erection of the buildings at Massillon in the capacity of trustee, and when it was ready for occupancy organized, furnished and opened it as superintendent. His experience therefore extended over the entire range of hospital construction and hospital care for the insane. It reached from the foundation stone through the planning and building period, embracing plumbing, draining, heating, fitting, furnishing, opening, organizing and finally superintending the finished work. It is little wonder then that President McKinley, perfectly familiar with his universal knowledge of the subject, and with his strong, earnest and honest character, should have favored his selection to fill the vacancy of superintendent of the Government Hospital at Washington.

That so strong a man should have been stricken with apoplexy at the early age of fifty one, especially without any premonitory symptoms, adds to the depression felt by his friends, and their sorrow is still further augmented by the thought that his career of usefulness was but fairly entered upon. Complimented a few weeks ago by an election as president of the association formed by his brother superintendents of North America, and but recently called upon to inaugurate a new era in the history of the most prominent, because it is the only national hospital for the insane in the United States, he was but crossing the threshold of his national career, or, so to speak, entering upon the second chapter of his life, the first chapter of which was finished when he left Ohio, the pages of which are filled with an uninterrupted series of successes. All in all, he was a strong, active man, a model husband, and affectionate father, a staunch friend and useful citizen, and whether the State forgets his services or not, he will continue to live in the deeds he has done and the good works he has accomplished.

THE FOURTEENTH INTERNATIONAL MEDICAL CONGRESS AT MADRID.

By A. E. MACDONALD, M. D., of New York,
Delegate from the American Medico-Psychological Association.

The Fourteenth International Medical Congress was held in Madrid, Spain, commencing on April 23 and terminating on April 30, 1903. It was under the presidency of Professor Julián Calleja y Sánchez, Doyen of the Faculty of Medicine of the Royal College of Madrid. As stated by the Secretary-General, Doctor Angel Fernández-Caro, at the opening session, it was composed of 7000 registered members, a little more than one-half of that total being Spaniards, and a little less than one-half foreigners. In this case, as in other following instances where figures are cited, approximate, round numbers are used. The numbers in actual attendance were not officially stated, so far as I am aware, up to the closing of its sessions, but did not probably vary greatly from those given above, members who registered in advance but failed to attend being balanced by those who attended without previous registration. The grand total of the foreign attendants was made up from the different countries represented, about as follows:

France headed the list and Germany closely followed, the former with a little over, and the latter with a little under, 800 members. No other country at all nearly approached this representation, the next in their order being Russia with 300 and Austria with 250, followed by England and Italy each with 240. The United States of America, with 200, filled the seventh place in numerical order, and from that to the eighth place, filled by the Argentine Republic, there was again a sudden drop in representation to 45. Hayti had the distinction of closing the list with a solitary sponsor, whilst, intermediately, among others came Portugal with 33, Brazil and Mexico with 25 each, and Japan with 4.

The administration offices of the Congress were located in the Palacio Bibliotecas y Museos Nacionales—the Biblioteca, for short. This is a fine edifice, admirably designed for its legitimate purposes, but even under the best of circumstances, hardly suited for the purposes of such a gathering. And the best of circumstances did not prevail, for the time of the meeting of the Congress was chosen also for the carrying on of extensive building operations which temporarily closed the main entrance and covered the main front of the building with scaffolding and hoardings. Entrance had to be effected therefore, by the comparatively unimpressive rear of the building and the quarters of the Congress reached, after entrance, by a circuitous route through some of the galleries of the museum and over a temporary wooden bridge.

Whether the number of attendants upon the Congress was a surprise to the administration, which scarcely seems possible in view of prior notifications and correspondence, or whether the necessities of the case were quite underestimated, which seems more probable, the preparations proved utterly inadequate. The offices temporarily partitioned off by flimsy screens were small and insufficiently manned, and some of the former were soon swept away by the mass of Congressistes—as members were generally called—who had to fight their way to the small pigeon-holes and then fight their way back again, to the great detriment of temper and clothing. Several thousand struggling Congressistes were supposed to reach one of these bureaus to obtain an identifying card and then to reach another and exchange it for other credentials and invitations, and all this in the few morning hours of the opening day, and preceding the formal session of the afternoon. It was simply a matter of physical impossibility, and many failed to get their documents then, or, for that matter, thereafter. Policemen, or civil guards rather, stood by, but made no effort to restrain or direct, and one longed in vain for the American instinct to "form a line," which would have much simplified matters even under the adverse circumstances. The experiences of the first day were repeated throughout the week with but little improvement; for example, one small office, with frequently but one clerk though sometimes two, was provided for the distribution of the thousands

of letters arriving. These letters were supposed to be arranged in packages in accordance with the initial letter of the name of the addressee, though it was quite common to find letters in the wrong packages, if they were found at all. As often as a name shouted by an enquirer reached a clerk, the package was gone through deliberately whilst all others waited, perhaps to be gone through again a few minutes later if another applicant with the same initial succeeded in making his wants heard.

The same failure to grasp the necessities of the situation was apparent in the publications of the Congress. A "Diario" was issued each morning purporting to give the official programme and information for the day, but it was often incorrect or incomplete, and not infrequently actually misleading.

A "Supplemento" to this publication was intended to give the names and Madrid addresses of attendants, and would have served a most useful purpose in enabling friends to find each other had it been issued promptly. But it did not reach members until the last day but one of the session, and was then found to be very inaccurate, hundreds of names being omitted and others being misspelled out of all recognition. This, however, was not confined to the Supplemento, but was shared in by all the official literature. The head of the United States delegation, Surgeon General O'Reilly, became *Dr. Reylly;* his compeer, Major McCulloch of the British War Office, became *Dr. M. Culloc;* my fellow delegate from the New York Academy of Medicine, Dr. Andrew H. Smith, was missed by the Supplemento, but Mrs. Smith appeared as "*de la famille de Congressiste Smitts*"; Saxer became *Sarer.* MacMullen *MacMulled,* and so on to the end of the chapter. Four friends of my own were kind enough to entrust their names to me for registration with my own when they saw the surging crowds and recognized the dangers of approach to the Registry. After carrying out the forlorn hope successfully, but one of the five names reached the sacred columns of the Supplemento, and its customary spelling was so sacrificed to individual Spanish taste, that it was only recognized after a painstaking autopsy. It may be proper to add, for the benefit of readers who have enjoyed the privilege of my correspondence, that the names were *not* in my handwriting.

The work of the Congress was divided among sixteen sections to which members were assigned in accordance with their expressed preference. Of these the sixth section, designated in the Spanish of the official programme "Neuropatias, enfermedades mentales y antropologia criminal," claimed my own membership and attendance. It was under the presidency of Professor José Maria Ezquerdo y Zaragoza, with Professor Abdón Sánchez Herrero as its secretary.

The total number of papers contained in the advance programmes of the various sections was 1681, but many of them were read by title only, or not at all. In the Section of Neuropatias the list contained 10 reports and 66 papers or communications, and in this section, as in others, the number of papers did not represent equally the number of contributors, several gentlemen offering more than one contribution, and some as many as four or five. But four papers were listed from English speaking contributors, one by Dr. Fletcher Beach of England upon "The care and treatment of Epileptics in England," one by Dr. Sutherland of Scotland, upon "The geographical distribution of Insanity," and two by Drs. Charles H. Hughes of St. Louis and Herman Hoppe of Cincinnati, upon "New views of the virile reflex" and "The cortical origin of disturbances of sensation" respectively. These were the titles as selected by the authors of the papers; as edited they were transformed into "*Eew vievos of the virile refeæ*," and "*Hysteritical Lesions producet by trombotic apoplexy.*"

The meetings of the various sections were held in the galleries of the Biblioteca, and had the advantage, therefore, of being all under the same roof as the offices of administration, etc., so that no time was lost in transit from one to the other. In this respect they were much better provided for than were the general meetings, which, being held in the amphitheatre of the Central University, were remote and inconvenient of access, and which had the added disadvantage of being held irregularly, insufficiently announced, and subject to vexatious delays and postponements. The advantage of convenience of location of the section meeting places was, however, more than offset by the structural arrangement of the galleries, there being no way of passing from one to another, where they did not adjoin, except

by traversing any galleries that might intervene. Apart from the continuous procession of Congressistes in legitimate transit to or from their sections, there was constant passing also of throngs of visitors whose interest lay in the inspection of the paintings, statuary and other contents of the museum, and who furnished for the conscientious Congressiste a source of distraction only less than that of the art objects themselves. I am not sure that the latter distraction was unwelcome to some of the less conscientious Congressistes, who found in it a relief from continued attention to discourses in languages which they did not understand. I have even heard an expression of regret from the irreverent that the meetings were not held in the other National galleries in the Prado, with their treasures of Velasquez and Murillo and the older masters. For it must be confessed that the Modern School as represented on the walls of the Biblioteca, while showing some noble paintings, is disappointing. Battle, murder and sudden death seem to be the favorite subjects of the artists, and any one of the galleries, as well as the particular one to which it was assigned, would have furnished an appropriate stage setting for the Section of Military Surgery.

In this matter of disturbance by visitors, the sixth section fared better than most of the others in that but one other section room had to be traversed in order to reach it and that there was nothing beyond to lead to its being made a general thoroughfare. It was also favored in the character of its contents, historical records in glass cases being less attractive to the sightseer or distracting to the Congressiste than pictures and statuary while the cases themselves, running down the centre of the room as well as along the sides, served to partition off the meeting-place. It may be confessed now that the contents of the cases served another useful, if not entirely commendable, purpose. By judicious selection of his seat and judicious changing of it from time to time, the Congressiste Étranger could preserve credit for polite attention to readings and discussions which he could not understand, while improving his mind by the partial perusal of the archives, and incidentally improving his opinion of his own and contemporary handwriting by comparison with that, for example, of Christopher Columbus, Cervantes, and Ferdinand and Isabella.

One of the regulations of the Congress had to do with the language in which papers might be presented and discussed, Spanish, German, French and English being those prescribed. Spanish was naturally most in evidence, though French was almost as prominent. German found an exemplar in the speeches of gratulation of the opening session from an unexpected quarter—Japan—Dr. Honda Tadao making his little speech in what he evidently considered the language of the Vaterland. The Germans present, instead of being flattered by the selection, protested loudly that his belief was unfounded and even had the bad taste to laugh at him. Others of the audience hissed those who laughed, and were supposed by others in turn to be hissing the speaker, and so the comedy of errors went on.

In the sections it was not uncommon to hear all the four official languages used in the reading and discussion of a single paper, and more than one essayist was able in closing a discussion to answer his critics in each of the several languages used by them.

An instance of this confusion of tongues of which I was myself, in a sense, a victim, came with the reading of the paper of Dr. Sutherland, Deputy Commissioner in Lunacy for Scotland, dealing with the comparative frequency of insanity as between urban and suburban localities. Dr. Sutherland had asked me in advance to open the discussion and for that purpose had given me verbally a brief abstract of its points. But he had not told me that out of compliment to the place of its presentation, and to the language of the majority of his auditors, he had had it done into Spanish. So I was put in the trying position for a conscientious congressiste of sitting through the reading with an assumed air of understanding every word of it, and of then getting up to make, in English, such comments as had been suggested to me by the reading to which I had just listened, as I told them, with such abundant interest and instruction. It was trying at the time, but upon maturer analysis of the entire situation I am led to wonder if our common audience did not perhaps understand as little of Dr. Sutherland's Spanish as they undoubtedly did of my English.

The social side of the Congressional week was of, by no

means, the least importance. Led by the Royal family, and followed by the Municipality, societies, medical and others, and by individuals, an abounding hospitality was shown not only to regular members of the Congress, but to the members of their families and to others accompanying them. The entertainments provided much surpassed in scope and detail those of the preceding congress in Paris, in 1900, and were surpassed, in turn, perhaps by but one other Congress—that of Moscow, in 1897. At the latter, however, the provisions for the care and entertainment of attendants, who were made literally the Nation's guests, were so lavish that it may well be doubted if they will again be paralleled—unless, by possibility, when Russia is in time revisited.

In the order of social events, precedence must of course be given to the two occasions, upon the afternoons of the second and seventh days of the Congress, respectively, when Royalty was the entertainer, the first function taking the form of a reception by the King, at the Royal Palace, and the second a garden party given in the name of the Queen Mother, in the gardens of the Campo del Moro. To the reception by the King only gentlemen in attendance at the Congress were invited, and from them, despite the early hour set, evening dress was, in accordance with continental custom, exacted. The long series of magnificent salons and galleries extending, upon the main floor of the Palace, throughout the three sides of the quadrangle which the latter occupies, were filled by the delegates, grouped in the alphabetical order of the countries from which they came accredited. Those from our own country—Estados Unidos being the official designation of the latter—found themselves between the representatives of Denmark on the one hand and those of France on the other, with Cuba preceding Denmark and Great Britain following France.

Through the long series of apartments, and down the long lines of the congressistes, the young King passed, accompanied by his staff and ministers, pausing as each country was reached for the formal presentation of the official delegates, generally by that country's minister or other official representative, and in the case of the United States by Minister Hardy, and then passing on with occasional pauses for the informal exchange of

a few words with individuals. Following the King's party, after an interval, came that of the Queen Mother, her daughter the Infanta Maria Theresa and her sister-in-law the Infanta Isabel, with the ladies in waiting, all in the court mourning being worn for the grandmother of the King making up its ensemble. The Queen Mother entered into conversation with the heads of delegations and individuals more extensively even than the King, and in turn, in that respect, was exceeded by the Infanta Isabel, who paused so often, speaking interestedly and animatedly in apparently all the languages, that hers soon became a separate reviewing party. It had been questioned, the unpleasant episode of the opening day of the Congress being fresh in memory, whether any difference would be shown, even perhaps unconsciously, by the members of the Royal party, in their treatment of the United States and other delegations. Upon the part of the King, I should say positively that there was not; he was courteous, affable, winning in manner, and made every delegate his sympathizing well-wisher on the spot. With Queen Maria Christina there was perhaps a little stiffening in manner, a little trace of hauteur, not to be wondered at in a high-spirited woman greeting the representatives of a country recently at enmity with her own, and which she had to thank for failure to keep intact through her regency the kingly possessions of her son. What she *was* capable of was shown when before she reached our position she had to pass Cuba's representatives, and did so without slackening pace, with head in the air and eyes fixed. For a foreign enemy, conquering but generous withal, there might be frank courtesy, but for rebellious colonists, never!

In withdrawing from the reception rooms and traversing the galleries leading to the hall of exit, opportunity was given for viewing the unique collection of tapestries which has made the Royal Palace justly famous. The unbroken series covering the vast area of the gallery walls gave æsthetic pleasure to all observers and to those from the Estados Unidos an added satisfaction as negativing the story published in the saffron journals just before we sailed that they had been depleted through the perfidious machinations of Mr. J. Pierpont Morgan. In connection with this reference to negative testimony that this gentleman is not so black as he is painted, it may not be out of place

to record that when in Seville, at the cathedral, we were shown the painting of Saint Anthony of Padua and gravely assured by the veracious guide that to Mr. Morgan's munificence was due the provision of the funds necessary to make its restitution possible after it had been stolen and carried to the United States. In this the veracious guide, either ignorantly and therefore innocently, or thinking that a good story should not be lost for want of a little manipulation, mixed up two stories of robbery and restitution, for the Anthony was stolen as far back as the seventies, and restored—not in the artistic sense—by a New York picture-dealer to whom it was offered for sale, while the incident with which Mr. Morgan's name was connected was a much more recent one. It will be remembered that the painting of the latter story was reported to have been cut from its frame and to have disappeared. After many months, through the detective ability of a distinguished gambler dwelling in the art centre of this country—New York—its hiding place was revealed in the crime centre—Chicago—and the above recorded episode in international comity followed.

The second in importance of the social functions was "El Garden Party," as it was called, with the Spanish annexation of foreign names for social pleasures which borrowing from the English herein, borrowed from the French in its "Esplendido Buffet." Changing the setting from the richly decorated interior of the Palais Royal to the gardens adjoining it, and adding to the members of the Congress the ladies accompanying them, the second fete followed otherwise very much upon the lines of the first. The King with his staff and cabinet, the Queen with her ladies in waiting, and the Infanta Isabel with her coterie again, in turn, passed along the lines of guests, drawn up this time informally and without reference to their nationalities, and stopped here and again for a momentary exchange of civilities. Military bands posted at intervals throughout the grounds furnished music for promenading, and as the Royal party made the circuit of the gardens in carriages in arriving and departing took up in turn the strains of the Royal march.

For the rest the more pretentious official entertainments of the week consisted of an afternoon reception to congressistes and their families by the Municipality, in the Gardens of El

Buen Retiro in the public park of Madrid, this taking the place of a banquet to the former which had been planned and announced but afterwards abandoned, when it was found how greatly the attendance at the Congress exceeded expectation.

Of indoor entertainments, the opera led the list, upon one night such of the congressistes as were fortunate enough to secure invitations attending as guests of the local committee. That this is but a small world after all was illustrated by the fact that during the week of our visit to Madrid one of the companies appearing presented a prima donna in the person of a New York girl, Miss Strakosch, while the baton was in the hands of Emil Paur, who may be considered a New Yorker by adoption.

With the possible exception of the Royal receptions, probably the most largely attended public function of the Congressional week was the bull fight of Sunday afternoon. The Plaza de Toros, or bull-ring, has a seating capacity of 14,000 persons, and to all appearance every seat was occupied. The usual programme was carried out in the usual way, six bulls were slaughtered and twice as many horses, without any chance for themselves, and the hope that is apt to arise after the first half hour in the bosom of the average alien spectator—that something unpleasant may happen to some of the men—was doomed to go unfulfilled.

It was announced in advance, though unofficially and, as it turned out, incorrectly, that this entertainment was to be provided as one of those upon the regular programme. Not only was this not the case—and most of the congressistes preferred to have it so—but so far from being invited to attend, no measures were even taken to see that those who wished to purchase tickets of admission might do so at the regular rates. As a consequence the tickets were absorbed long in advance, and the stranger had to pay four or five prices, or to reach a late conclusion that he didn't think it proper for him to countenance such an exhibition. Similar conditions attended some of the other entertainments, even in one instance, one of those supposed to be a complimentary tribute from the local to the foreign members of the Congress.

Some well-meaning foreign delegates were much worked up

over the horrors of the bull-fight and the impropriety of attendance, and inferential countenance, upon the part of visitors from other countries. One prominent official delegate, indeed, took steps toward public condemnation of the function, and of bull-fights in general, by the congressistes in mass meeting assembled. And he was not from the United States, either, the only country which has the inherent and heaven-born right of volunteer regulation of the internal affairs of other peoples. But the demonstration fell through, perhaps upon realization that criticism of one's host's individual manners and customs in a matter which he had not obtruded upon one would not be in the best of taste. A Spaniard in America need not go to a college football match or a negro roasting unless he wishes to, and would probably, if he should be in any sense the nation's guest, forbear from wounding national sensibilities by unfeeling reference to them. After all Spain may be left to work out the problem of perpetuation or abolition of an ancient national pastime, and this with, as it is understood, the King, and certainly the Queen Mother, strong advocates of the latter course. Meantime it might be well for some of her critics to reverently remember that while Spain permits the bull-fight, she stopped the automobile race.

Any account of the Fourteenth International Congress would be only partial which failed to refer to the imperfections and unpleasantnesses which undeniably attended it, though not by any means in the degree that was represented in some quarters, or believed at the time by some self-supposed victims. This unpleasant subject may as well be disposed of here, and more agreeable matters turned to. It may be at once admitted that errors in management were perceptible beyond those attending former Congresses, and beyond those necessarily inseparable from so large an undertaking as the assembly and care of so vast a body. To some of these I refer in other connections. Indications of what was to come were given before they left their homes to many intending members, whose correspondence remained unanswered or remittances unacknowledged. Credentials which were necessary in order to procure promised reductions of fare upon railroad and other routes, failed to reach members in time, or when received were in such form as to

lead the common carriers concerned to repudiate them, and many congressistes had in the end to pay full fares and to forego conveniences of travel which they had supposed to be assured. Complaints of this nature were common from the attendants from all countries. My own experience in that regard was shared by over twenty of my fellow-passengers on the same steamer, with the same errand, and it was only after vigorous telegraphing from Gibraltar by the agency that had most of us in charge that emergency arrangements were made by which we were afforded the transportation facilities and reductions promised and contracted for. The credentials which failed to reach us before sailing, and which we were later told were awaiting us in Madrid, did not materialize even there, and my own have not materialized yet, but I solved the problem in part by paying my subscriptions a second time. Many others had similar experience in that particular regard and others again, in other directions also, those who had subscribed in advance for the Album of the Congress, for example, being informed, though without any offer to return their subscriptions, that the matter had been placed in the hands of a German firm which had failed to keep its engagements. But the worst sufferers, no doubt, were those who depended upon the official Bureau des Logements to provide them with accommodations during their sojourn in Madrid. The plan laid out contemplated the purchase by the confiding congressiste of certain coupons which were in turn to be accepted by the providers of bed and board, any surplus coupons to be redeemed by the Bureau. As a matter of fact only the first part of the plan appeared to be carried out, the Bureau took the money, but the landladies would not as a rule take the coupons, and the Bureau either would not or could not redeem them. It turned out that the Bureau was official only in name and, according to the story, the individuals to whom its privileges were farmed out stayed long enough to make the collections and then levanted. As a consequence many of the patrons of the Bureau found themselves in a most embarrassing position, as for that matter did those of the lodging house keepers who had accepted the coupons, and on the last days of the Congress the Bureau was assailed by both classes unavailingly, for payment was stopped and the doors un-

opened. Baggage was seized, and in some instances personal arrest was even undergone. Those who were fortunate enough to have surplus funds at command were able to effect the release of their bodies and their belongings by paying a second time, with the not very confident hope of ultimate refunding, but those who had calculated their expenses more closely found great difficulty in meeting the imposition.

From such undesirable happenings I was personally fortunate to escape, in company with others composing a party arranged for by Dr. Ramon Guiteras, who originally headed the delegation from the New York Academy of Medicine, but who, much to our regret, was at the last moment prevented from accompanying us. Dr. Guiteras wisely placed the conduct of this party in the hands of the Cook's Agency, whose satisfactory preliminary arrangements were so efficiently carried out by their representative Mr. F. Piromali, who conducted the party from Gibraltar to Madrid and return, that personal trouble and annoyance were reduced to a minimum, and general results were, with due allowances for all the difficulties of the situation, more than satisfactory.

Under the arrangements made, the members of the party were taken from, and returned to, New York, for a certain outlay, depending upon the time occupied and the variation of routes permitted, all transportation, hotel accommodation, and other legitimate expenses being included. The party sailed, to the number of some thirty-six, upon the steamship " Prinzessin Irene " of the North German Lloyd service, on April 11th, and six survivors, including the writer, landed from the same steamship at New York on May 13th, having had in the interim nineteen pleasant days at sea and fourteen busy, but enjoyable, days ashore. Their more fortunate comrades at the outset who could afford longer absences from their hospitals or their offices, were left to linger in Spain or to pass on to France or Italy and to find their way home in detachmments.

The most serious unpleasantness, at least so far as members of the Congress from our own country were concerned, arose from the untoward happening of the first day when, at the inaugural session, the United States failed to respond with reciprocal greetings upon the occasion. The Teatro Real or Grand Opera

House was the scene of the gathering, and was crowded to the roof by members of the Congress and their families and by the representatives of the Spanish court and people. The King, as especial patron of the Congress, looked on from the Royal box with the members of his family, and tne stage was filled with the accredited representatives of the different countries taking part in the conference, all but the United States. Addresses, more or less brief, but all cordial in the expression of good will to the country in which they met, couched in the several languages officially recognized, had been received and applauded, from Germany, Austria, Argentina, Belgium, Brazil, Denmark and others, even Cuba, coming in alphabetical order, but the eleventh country, the Estados Unidos, found no sponsor, and after a second call and a painful pause, the roll-call went on to the end of the list. Someone had blundered, just who will perhaps never be settled, but that it was a blunder, and not an intentional slight in either direction may now, in cooler blood, be accepted as certain. Of course the incident was promptly assigned a definite relation to the late unpleasantness between the two countries, and our own people, or the majority of them, went to bed with the firm belief that the eagle's tail-feathers had been feloniously trifled with. Next day it was found that the Spanish lion had worked up insomnia over the deliberate insult from the Americanos, and gradually the temperature subsided and bloodshed was averted.

Speaking more seriously, there can be no doubt that the unfortunate episode referred to put for a time an added tension upon a situation naturally somewhat strained. Without going into the general question it may be proper to give your readers my more personal experiences of the visit to Spain, and this must be my excuse for obtruding myself so much upon the narrative. I must say then, that in everything that bore any possible relation to the state of feeling between the two peoples, the impression given me was of a strong wish for amicable and cordial agreement. In the section to which I was attached the honor was done me, as the delegate of the American Medico-Psychological Association, of selection as one of the Honorary Presidents, and in the public functions and private courtesies, it appeared to me that special pains were taken to emphasize the

expression of good will and good fellowship. In this phase of the matter my experiences were unboundedly satisfactory from beginning to end, from "Bienvenida" to "Despedida." The pleasure in the first-mentioned honor was, it is only honest to admit, somewhat marred by the fact that in the official announcement I was assigned to Inglaterra while, by way of compensation, Hughlings-Jackson was presented to the Estados Unidos, and our friend Fletcher Beach, of London, was transferred to Scotland, under the guise of "Beach-Fletcher, Ecoss'e."

At the closing session of our particular section, its President called me with two other foreigners in turn to the chair, and then in the course of an impassioned valedictory strained us, in turn, to his bosom.

To a man who had theretofore lived a modest and retiring life to find himself suddenly clapsed in the embrace of a stalwart foreigner who kisses him upon both cheeks and pours into his ears a volley of words which he cannot understand, but which are plainly of an endearing nature, is unmistakably embarrassing. But it is the custom of the country and no good delegate should complain of the perils of his delegation. At the general meeting in closing the Congress the retiring Spanish President and the Portuguese President-elect fell upon each other in an osculatory duet that was beautiful to behold.

With meetings either general or sectional set for nine o'clock in the morning (an early hour in view of the late hours of retiring common in Madrid) and expected to re-assemble, in case of adjournment with unfinished business, in the afternoon, with entertainments of one and another kind almost every afternoon and evening, and with two official excursions—to Toledo and to the Escorial—claiming, if made, two full days of the eight, the congressiste had no light task to meet, even with liberal cutting of many of the functions. And little time could be found even at unwelcome sacrifice for the visits to hospitals and other institutions, and for friendly interchange of individual converse, which after all perhaps forms as important a feature of such congresses as the more formal and official numbers upon the programme. My own visits were limited to one hospital for the insane, and to the Hospital for Epileptics, near Madrid, and, upon my journey to the coast, to the Hospital Real de Dementes or Maison des fous, at Granada.

The invitation to visit the Hospital for Epileptics, or to give it its proper title, Instituto-Asilo de San José para Epilepticos, was extended to three hundred members by the President of the Congress, who is also by nomination of its founders, the Director of the Hospital. Start was made from the Plaza Mayor, where in the cheerful days of the Inquisition so many souls were sent to heaven through the fiery deliverance of the auto da fé. This particular Plaza is one of the most interesting localities in Madrid, having been for many decades the site of Royal functions, from those of the auto da fé through the bull-fights and horse races, to the canonization of saints. The mansions which face upon the square, and which date back many of them to the fifteenth century, are constructed with a view to making them convenient points of observation of the various ceremonies. Arcades and balconies said to be capable of accommodating 50,000 persons front upon the square, so that delicate women and tender children needed only to step from their chambers to share the pleasures and educational advantages of the bull-fight and the bonfire.

From the Plaza Mayor with its evil memories to the well-equipped hospital at the other end of our journey, from the fifteenth century to the twentieth, progress could not well be better epitomized!

The hospital owes its endowment to the Marques of Vallejo and his lady, and is dedicated to the memory of their only son who died of epilepsy. It is an example to private benefactors of other communities in that its donors were not satisfied to present a hospital building and leave its care and administration to the public or to further private munificence, but provided for its maintenance for all time. The gift was to a Nursing Brotherhood—that of San Juan de Dios—the Father Superior of that order having charge of the administration and the monks thereof filling the posts of nurses and attendants generally. The capacity of the hospital is one hundred beds, and admission is restricted to male epileptics who are not, in addition, either insane, idiotic or imbecile, and who are also indigent.

The buildings are of modern construction, brick being the material used, and take the form of one and two story pavilions. Notwithstanding the limited number of patients cared for, full

provision is made for treatment in the way of electric and hydropathic apparatus, and in a most complete operating theatre, while a series of well-equipped schools and shops provide for mental and manual instruction. The hospital is of but recent construction, is indeed scarcely completed now, but the barrenness of the high-level plain on which it stands is already succumbing to irrigation and to the labor of its inmates.

The Hospital for the Insane, "Manicomio de Esquerdo," to which I have referred as one of the few institutions which I found time to visit, is situated at a distance of several miles from Madrid in the suburb Carabanchel, in proximity to the St. José Hospital, but in the longer period of its existence—it was established in 1877—more opportunity has been given for redemption and cultivation of the arid plain, and well shaded and attractive grounds surround it as a consequence. Dr. José Maria Ezquerdo y Zaragoza, the President of the Section of Neuropatias, is also the Director and Proprietor of the hospital, and took the occasion of the visit of the members of his section, and after the inspection of the grounds and buildings, to invite them to a most sumptuous banquet. This was given in the evening, in the large dining-room of the establishment, which was decorated with flowers and the flags of different nations, the center-piece being a large crimson shield bearing the legend "El Manicomio de Esquerdo á los Mentalistas y Neurólogos extrangeros y Nacionales." Some two hundred guests attended, and the novelty was introduced of having the several tables presided over by women physicians who were delegates to the Congress, and members of its sixth section. At the head of the principal table was Doctor Madame Susanne Marcoma of St. Petersburg, while the tables were also graced by the presence among others of Mesdames Raissa de Netchaewa and Dominga Bosch de Pacheco, of Buenos Ayres.

The honor was shown me of selecting me as the first mere man to sit at the right of the chair, and all through the varied courses of a most excellent repast I was embarrassed by wonderment whether it was customary in Spain to conclude festivities as well as scientific assemblages with such little passages between the President and the surrounding participants as I have before referred to. I found that it is *not*.

Following the banquet, when representatives of the different countries were called upon to toast and be toasted, and it fell to my lot early in the series to stand sponsor for the Estados Unidos, the naming of that country left nothing to be desired in the way of spontaneous and hearty greeting.

The hospital contained at the time of our visit a complement of one hundred and eighty patients, divided apparently among several classes of paying patients, having accommodations of varying extent and furnishings. Some of the patients were also, evidently, of the dependent classes. A branch of this hospital is maintained at Villajoyosa, in the Province of Alicante, upon the seacoast, to which patients are sent for whom sea-bathing and sea air are considered desirable.

A feature of the banquet already referred to was the appearance upon the handsome menu of several articles of home production, the especially fine oranges coming from the country branch, as also the cheese and honey, and a very palatable wine from the vineyards of the Manicomio. Many of the hospitals and benevolent institutions of Spain—most of them under the direction of religious brotherhoods and sisterhoods—make a specialty of the preparation of articles of food and other products which are not alone used by their charges but sold for their benefit. They reminded me of our visit, at the time of the meeting of the Montreal Association, to the Longue Pointe Asylum, and the inspection and sampling of the dainties prepared under the supervision of the nuns in charge there. I was led to wonder how long it would be in the course of progress before, as in our own case, such practices should offend the delicate sensibilities of the Spanish walking-delegate to come, and before I left the country I saw by a Madrid newspaper that both the walking-delegate and the protest had already come.

The Hospital for the Insane at Granada is remarkable chiefly for the antiquity of its creation and the interest of some of its interior decorations, and finds a more appropriate place of mention in Baedeker than in the AMERICAN JOURNAL OF INSANITY. It was commenced during the reign of Ferdinand and Isabella and completed in 1536, in the reign of Charles the Fifth. A fine ceiling in the entrance hall, and other notable characteristics, attract the tourist as he leaves the adjoining bull-ring, and

he in turn attracts the unfortunate *dementes*, who surround him with clamorous demands for cigarettes or the wherewithal to purchase them. The inmates of the department for the insane are not in large number, and are not to all appearance very scrupulously separated, either in location or treatment, from other dwellers in the establishment, among whom are many young children, foundlings, as I understood.

Throughout Spain, so far as I could see or learn, very extensive provision for the segregation and active treatment of the insane is not made. Dr. Ezquerdo's hospital is well arranged and equipped with modern means for scientific treatment, electrical, hydropathic and the rest, but its population was under two hundred, and Madrid is a city of five hundred thousand inhabitants. At Seville, one of the largest of Spanish cities, upon inquiring for the hospital for insane, I was told that there was none, properly speaking, and that the few patients suffering from mental disorder were housed with the old men and women in what would correspond to our almshouse. But if provision for the insane is not extensive, the same may be said of insanity itself. The disease does not, to all appearance, prevail, or at least, demand recognition, at all as extensively as in the average of European countries, and from what I could see of actual hospital inmates, it is apt to take, when it does appear, a low and undemonstrative type. The insanity which with us would demand the sequestration of the patient, as filling the test-requirement of rendering him "dangerous to himself or others," is not the prevailing type in Spain.

At one of the hospitals visited my attention was drawn to a novel means of ward decoration and of entertainment for patients by the sight of a burly Padré, apparently the hospital chaplain, who was chirruping to the occupant of a small wicker cage placed upon a bracket upon the wall. Upon closer inspection this occupant was found to be a cricket. Birds, and especially song-birds, are almost unknown in Spain, the destruction of the forests which has left the country for the most part a succession of arid plains having carried with it also the extinction of the feathered tribes. To this rule there are some notable exceptions, as in the case of the park and gardens of the Generalife at Granada and the Alhambra, where the trees which

owe their planting to the Duke of Wellington, at the time of the British occupation, give shelter to many nightingales and other songsters.

But in the main, and especially in the form of domesticated song-birds, there is the dearth of which I have spoken, and the cricket, so far as may be, seems to be the recognized substitute. They are regular articles of sale at the hands of the street vendors, who transfer them from their general stock to smaller cages as a customer and his centimos present themselves.

I mention this matter with some trepidation lest it should attract the attention of the Lunacy authorities of one of the States which shall be nameless. I can imagine, if such untoward result should occur, some hapless superintendent finding his revised and returned estimate to read as follows:

"AMUSEMENTS—One dozen canaries.

Disallowed. Re-estimate for one dozen crickets.

Correspond with Manhattan State Hospital, East."

The question of the choice of location for the meeting-place of the Fifteenth Congress, three years hence, was, of course, canvassed with interest both before the opening of the present one and during its continuance. Many among the attendants from this country were desirous that opportunity might be given to show what the United States could do in the way of perfected management, and incidentally to redeem the not entirely satisfactory record of the former Congress in Washington, in 1887. No formal consultation was held, however, and no information vouchsafed, but it was learned afterwards that not only was no invitation given from this country, but that some at least of those who found occasion to speak, earnestly opposed any action looking to such a selection upon the part of others. Failing the United States, Canada found great favor among those whose views I was most in the way of hearing, and who had in mind the magnificent receptions accorded last year to the American Medico-Psychological Association, and in 1897 to the British Medical Association, in Montreal. Of European meeting-places, Vienna and Budapest appeared to have most advocates, while Japan, as in Paris in 1900 and in Moscow in 1897, was understood to be a willing host, not without partisans. Inaccessibility—comparative, and lessening from year to year—postponed

again, however, the visit to the land of the chrysanthemum and the cherry blossom, which will no doubt some time come, and that Europe would carry the day at least once more was apparent early in the week of the conference. The actual decision was not, as matter of fact, reached until the last moment, or indeed until after the proper last moment, a mysterious adjournment being taken at the farewell session just as the formal announcement of the time and place of next meeting was in order, from which the officials returned with the unexpected report that Lisbon had carried the day. Explanation followed astonishment, to the effect that none of the more favored countries had made good by the official invitation that was deemed essential, the efforts of individuals, and that the latter had failed to obtain by telegraphing to their capitals, the endorsement which the delay and the adjournment were intended to afford them opportunity for. It was, therefore, Hobson's choice, and full credit should be given to Portugal for courtesy and hospitality. That the choice was a disappointing one was nevertheless evident from the outset. With impressions derived from one capital difficult of access and deficient in facilities fresh upon them, the congressistes in general could not look forward with enthusiasm to a meeting in another capital still less favored in size and accessibility and facilities. And, apart from these more personal considerations of comfort and convenience, there was undoubtedly the feeling that with world-wide purposes in its organization and conduct, the meeting-places should not be selected in close succession with virtually the same surroundings, with the same prevailing language, and to reach which remote participants must repeat a tedious and expensive journey, and sacrifice twice over an inconveniently protracted time.

Two questions have so frequently been asked me since my return, that I think perhaps some of those who read what part of this writing may escape the editorial scissors may have it in mind to ask them also. One of them has been as to the personality of the young King, and the other as to the present feeling of the Spaniards toward the United States. The first question is very easy of answer; the second is more difficult.

Alfonso XII will be a distinctly pleasing disappointment to those who have been prone to accept too credulously the

descriptions of the yellow journals of our own country. He is neither an imbecile nor a degenerate, as they in turn depicted him. On the contrary, he impresses one upon near inspection —and he was very much in evidence during the week of the Congress, at the opening session, at the two Royal receptions, and in casual meetings in the streets, for he evidently goes among his people very freely—as a youth of good parts. While slight of frame, he has the set up of the soldier, and is of courteous bearing and affable manner. His face is pleasing, with a somewhat pathetic look in it; and altogether, taking into consideration his youth—he reached his seventeenth birthday shortly after the meeting of the Congress—the impression made, as generally told, was very favorable.

The question as to the present feeling of the Spaniards toward their late foe is, as I have said, less easy of answer. I have already related my own experiences and impressions as bearing upon the subject, and I do not question that if those of my fellow congressistes could be canvassed they would be found to be in accord with them. But the feeling of men of the class from whom such impressions were in the present instance derived, physicians of high intelligence and professional standing, might not possibly represent the feeling of a whole people. Spending as short a time as we did in Spain, and under such conditions as marked our progress through the country, we had little opportunity of learning the feeling of its inhabitants except those of one other large class. As this class embraced those engaged in one way or another in ministering to the foreign tourist, its opinion must of course be taken *cum grano*. The average hotel keeper, railroad official, or, for that matter, shopkeeper, is apt to have a somewhat selfish interest in the matter which may quite possibly affect his patriotic instincts, and the Norte Americano has just now, undeniably, the preference for frequency of appearance and lavishness of expenditure. As might be expected, then, the members of this class are unanimous in the expression of good will toward the United States, and particularly toward the traveling representative thereof, while some go further and unhesitatingly condemn the war which for a time estranged the nations and sent the "Yanki" tourist to more favored lands. Representatives from the United States occasionally met, traveling with other purposes than our own, have

told me of a different feeling among the classes with which they come in contact, and of a deep seated resentment and ill will which stands in the way of commercial dealings. It is claimed by them, for example, that Spanish dealers will not purchase, because they cannot in turn sell, American-made agricultural implements, so great is said to be the prejudice of the farmer and peasant classes.

Perhaps it is best to make answer that feeling varies with different classes and communities. That a portion of the press panders to and fosters ill will in Spain, as here, goes without saying. As I look at a Madrid organ now before me, to refresh my memory as to one of the pleasantest of my own experiences there, I find in the next column the headlines "Barbari Yanki en Filipinos" and under them a lurid summary of iniquities. Barring the language, one might just as well be reading the "Evening Post."

In this connection it would seem proper to make mention of a contribution to the amenities which made an excellent impression and was most favorably commented upon at the time. At the King's reception, Dr. Carpenter, representing the United States Navy, appeared in the ordinary full dress of the civilian delegates, and it was learned that the Secretary of the Navy had directed that uniform be not worn, in delicate and tactful deference to the possible feeling of the host and his subjects. A little more of such thoughtful consideration upon either side, and pacification will not be difficult of accomplishment.

I have endeavored in what has preceded to give impressions made upon me without drawing conclusions. I have been led from observation and experience to the belief that only first visitors to a foreign country are qualified to discourse authoritatively upon its manners, customs, laws, religion, dress, politics and what not, and having been in Spain once before, I am of course disqualified. We are all perhaps inclined to mar the infallibility of our utterances by jumping to conclusions and generalizing from incidents. When one of the young ladies of our party in the fortifications at Gibraltar, catching sight of the remnant of the Barbary apes which keeps its habitat in the Rock, exclaimed "O! look at those monkeys," Tommy Atkins, in charge as cicerone, and from the height of his superior knowledge, corrected, "Them's not monkeys, mem, them's Ipes."

Notes and Comment

DEATH OF DOCTOR RICHARDSON.—It has been customary to give a brief account of the life and services of the President-elect of the American Medico-Psychological Association each year in the issue of the JOURNAL following the annual meeting. This year, alas! compliance with the custom is rendered unnecessary by the tributes to his memory from life-long friends in another portion of our pages. It only remains to speak of the great loss to the Medico-Psychological Association by his untimely death. Dr. Richardson was no ordinary man. He possessed unusual clearness and breadth of mental vision and was able to realize his conceptions of administrative and public policy to a greater degree than is permitted to the majority of men, because of his tact, sweetness of temper and winning personality. He sacrificed no principle and neglected no duty and yet made friends rather than opponents wherever he went. He was an enterprising and progressive superintendent, an excellent administrator, an accomplished alienist, a warm-hearted friend, a devoted husband and father, a high-minded citizen and an earnest Christian. The vigor and energy which he displayed when he assumed charge of the Government Hospital for the Insane at Washington, led his friends to expect that added honors and multiplied usefulness would crown his permanent residence there and that the only national institution for the insane in the United States would be a worthy monument to his constructive and administrative ability as well as to his knowledge as an alienist, physician and teacher of psychiatry. This was not to be, and we mourn his sudden and unexpected removal by death from the field of his too abundant labors.

PROCEEDINGS OF THE 59TH MEETING OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—The publication of the present issue of the JOURNAL has been deferred in order that as

usual we might print the proceedings of the late meeting at Washington. Owing to unexplained delays in securing the stenographic report—delays in no wise due to any negligence on the part of the Secretary—it has proven impossible to secure the usual Proceedings and we are compelled to issue the July number of the JOURNAL without them.

THE WASHINGTON MEETING.—The success of the fifty-ninth annual meeting of the American Medico-Psychological Association, the first meeting held at Washington since the Association became one of the constituent bodies of the Congress of American Physicians and Surgeons, fully justified the wisdom of the decision to become a member of this larger organization. The opportunity which was thus afforded to alienists to mingle with physicians, neurologists and eminent teachers of medicine gave them a helpful stimulation and a broadening view of medical science. The members of other organizations were equally benefited by a closer acquaintance with the aims, methods and results of those who devote their lives to the treatment of insanity. The addresses and papers presented to all members of the Congress at the general sessions were very inspiring and profitable, representing as they did the most advanced work in many branches of medical knowledge. The time allotted to social functions was necessarily very much restricted by the great pressure of general and special meetings. Such as were possible were much enjoyed, especially the visit to the Government Hospital for the Insane at Anacostia, under the hospitable guidance of Dr. Richardson and his staff.

The proper work of the Association in its daily sessions was of excellent merit as will be evident from reading the first installment of papers there presented, as published in the present number of the JOURNAL. The number of papers indeed was so large as to necessitate a session on Friday after other societies had adjourned and gone to their homes. The members of the local committee of arrangements, of which the chairman was the lamented Richardson, were painstaking and untiring in their efforts to promote the welfare and comfort of the Association.

THE PSYCHIATRICAL SOCIETY OF NEW YORK.—Under the above title a new society has recently been organized, with the fol-

lowing officers: Dr. Allan McLane Hamilton, President; Dr. Frederick Peterson, Vice-President; Dr. Pearce Bailey, Secretary and Treasurer. The object of the society is to promote the interests of psychiatry in America, and to stimulate its study. The meetings are held four times throughout the winter, at the houses of members. At each meeting there is a general discussion on some specified subject, the discussion being opened by some designated member, and participated in by all the members of the society. The limit of membership is placed at fifteen, and among the present members of the society, apart from the officers named above, are Drs. Charles L. Dana, William Hirsch, A. E. Macdonald, E. C. Dent, L. Pierce Clark, H. E. Allison and Graeme M. Hammond.

WHAT NEW YORK IS DOING FOR HER INSANE.—1. The Pathological Institute has been reorganized and more than sixty of the medical men connected with the staffs of the fourteen State hospitals have been instructed during the past winter at the institute on Ward's Island in the recent development of psychiatry along clinical, pathological and psychological lines. The legislative appropriation for the institute is now $25,000 annually.

2. The hospitals have been opened to medical internes in the same manner as general hospitals. Last year sixteen clinical assistants entered the service in this way, and this year the number is nearer thirty.

3. The legislature recently passed the Lunacy Commission's bill for the appointment of a Medical Inspector to assure a more thorough inspection of the thirty-nine institutions under its charge, viz.: 23 private retreats, 2 criminal asylums, and 14 State hospitals for the insane. Such inspection, especially of the private asylums, in which there are about 1000 patients, has never been adequate.

4. To remedy overcrowding, the Lunacy Commission proposes to construct a new hospital in the territory north of Albany and Troy on the colony system similar to that of the Craig Colony. The site will be selected and plans made this year. This colony for 1500 to 2000 patients should be ready inside of three years.

5. Three tuberculosis hospitals, each with a hundred beds, will be constructed this summer at a cost of $90,000 at Middletown, Utica and Binghamton on the grounds of the State hospitals lo-

cated there; and the plans made by Dr. Peterson and the State Architect embody the main features of such hospitals described in the King Edward Prize Essays. In the meantime, tent life for the tuberculosis insane has been in vogue at the Manhattan State Hospital, East (under Dr. Macdonald) for two or three years and for a shorter time at Binghamton and other of the State hospitals.

6. The country colony for a few of the working classes of the insane, as an offshoot of the Utica State Hospital, has been enlarged. A similar colony has been established at the Willard State Hospital and two are in existence at the State hospitals at Binghamton and Poughkeepsie.

7. A new departure this year is the creation of a summer camp for between 40 and 60 insane on the lake shore about 15 miles from the Rochester State Hospital which is now in operation, to the great delight of both patients and attendants.

8. The feature of nurses' homes having been found so useful at some of the hospitals, two additional ones will be put up this summer, one at Kings Park State Hospital, Long Island, for 300 nurses, and one at the Gowanda State Hospital for 100.

9. Six or seven residences for superintendents and separate houses for the medical staffs will be put up this season at as many of the State hospitals, thus removing the officials from the central main buildings and utilizing the vacated space for patients.

10. A bill providing for emergency commitments, recommended by the Lunacy Commission, was passed by the legislature at the last session. Copies of this law have been sent to all the examiners in lunacy of the State. It is believed this will mean great good to the insane and prevent the all too frequent incarceration of urgent cases in jails and station houses.

11. The improved ration brought about during the last six or eight months, though entailing an additional cost to the State of a hundred thousand dollars per year or more, has added greatly to the comfort of the patients and to the satisfaction of the medical officials and various visiting boards.

12. A strong effort is being made by the Lunacy Commission to increase the number of deportations of alien insane, and through the efforts of New York State, the federal government passed a law making the limit three years instead of one; i. e., an

immigrant becoming insane within three years after landing in the United States may be returned to his own country.

13. The movement for the establishment of reception hospitals for acute curable cases in the large cities has gained strength. While the bill for the psychopathic hospital for New York City, which was to be the first of several such reception hospitals, failed to pass this year, it is believed that success will attend the Commission's efforts during the coming session.

MANHATTAN STATE HOSPITAL, EAST.—The personnel of the board of consulting physicians and surgeons has been changed by the withdrawal of Dr. Frederick Peterson, who had been a member of the board since 1892. Under the circumstances of his new relations to the hospital as President of the State Commission in Lunacy, Dr. Peterson thought it best to relinquish the relation of consultant. His place has been filled, upon the nomination of the Superintendent and the approval of the State Commission, by Dr. Carlos F. MacDonald, former President of the State Commission and Professor of Mental Diseases and Medical Jurisprudence at the University and Bellevue Hospital Medical College. Other additions to the membership of the consulting board and the branches to which they are specially assigned are as follows: Dr. William Hirsch, Psychology; Dr. William C. Lusk, Rectal Surgery; Dr. Pearce Bailey, Neurology; Dr. W. Evelyn Porter, Gynecology; Dr. Ramon Guiteras, General Surgery; Dr. John L. Adams, Ophthalmology; Dr. Thomas P. Prout, Pathology.

Changes in the medical staff of the hospital have been as follows: Drs. J. E. McCambridge, C. J. Hyde. J. M. Parkinson and A. D. Edwards have been appointed clinical assistants. Dr. C. H. Holmes, medical interne, has resigned and Dr. Adelaide Turner has been appointed to fill the resulting vacancy. Dr. Glanville Y. Rusk has been appointed autopsy physician both at the East and the West hospital.

The sixth commencement of the training school for nurses of this hospital, in conjunction with those of the Manhattan State Hospital, West, and the Manhattan State Hospital at Central Islip, was held on June 3, under the presidency of Mr. James MacGregor Smith, of the Board of Visitation. The address to the nurses was delivered by Dr. George R. Van De Water, Rector of

St. Andrew's Church and Chaplain of Columbia University, his subject being "Three Elements of Success." The diplomas were presented to the graduates by Mrs. Eleonora Kinnicutt, a member of the former Board of Managers of the Hospital from its creation in 1896 to its abolition in 1902, and now a visitor of the State Charities Aid Association. The chaplains of the hospital, the Revs. Rufus Duff and Alfred Blewitt, also took part in the ceremonies. Music by the band of the East Hospital, and the orchestra of the West Hospital, and decorations with flowers and plants from the hospital conservatories, added to the entertainment of the guests, who comprised a number of former graduates of the training school, friends of the graduates of the present year and physicians and others interested in the hospital service, who prior to and following the commencement exercises proper, inspected the several wards and other portions of the hospital buildings.

Advantage was taken of the general holiday on the afternoon of Decoration Day, May 30, to hold one of the series of outdoor field sports which are given at this hospital on the four leading holidays of the year, in addition to Decoration Day, Arbor Day, Independence Day and Labor Day. Upon such occasions the friends of the patients without limit are allowed to visit the Island and view the sports, and upon this occasion some two thousand spectators in all were present. The next field day of the series will occur upon the Fourth of July, when in addition to the ordinary track and field events, the large salt water swimming bath will be utilized for swimming races between the patients, for which as for the other events, appropriate prizes are awarded.

The third year of the use of tents for the treatment of different classes of the insane has been opened with the addition of a fourth camp to those established in former years, and with a total of 175 patients occupying the tents of the several camps upon the first of June. The camp for tuberculosis patients, which had been in continued use throughout the winter, was moved from its sheltered position behind one of the wings of the main building to a more open situation upon the lawn, underneath the trees in front of that building. To the larger tents several smaller ones have been added, so that special treatment may be given to smaller numbers presenting individual symptoms, or in fact, where required, to individual patients in single tents. The tents for

service of food, accommodation of employees, and for amusement, have been added to in this camp as well as in the others. The camp for uncleanly male patients has been re-established as in the past two summers, as has also the third camp, occupied now as last year by feeble and uncleanly women patients. A fourth camp has been established and is occupied by some 45 patients who work during the day in the shoemaker's and tailor's shops, the printing office, and in other indoor employments. The satisfactory and somewhat unexpected experience with the continuation of the tuberculosis camp throughout the severe weather of two winters has been paralleled by the experience of all four camps throughout two weeks of most inclement, rainy weather during the present month. In the latter experience, as in the former, the tents have been found comfortable, and the patients not only uncomplaining, but pleased with their new surroundings.

A Tribute To Pinel.—Many of our readers have doubtless received the excellent reproduction of the picture of Pinel striking the fetters from the patients of the Salpêtrière, presented by Mr. James Munson Barnard of Boston. In thus recognizing the starting point of modern philanthropy, Mr. Barnard has given a very touching reminder of an historical fact of importance, and the accompanying brief, memorial of Pinel's exertions, by Dr. Lincoln, will recall acquaintance with the details of the great work of his life.

It may not be known by our readers that excellent portraits of Pinel and Esquirol are to be had in this country. The Brace Studio, at Canandaigua, N. Y., have in their possession excellent negatives from which portraits may be printed. The cost is nominal.

The New McLean Hospital.—In any retrospect of the achievements in the care of the insane by the present generation, one great underlying principle, marking the contrast from earlier periods, is seen to assume prominence. This is the recognition of the paramount rights of the patient. The laws and administration which preceded the so-called modern reform, were for the protection of the community, and, if necessary, the annihilation of the

patient. In the light of recent developments, it is interesting to note the difficulties and failures of faulty methods, and the ease of adaptation of all conditions to what is right. This proposition transcends the acts of individuals, hospitals, State commissions and even State laws. Each year, each day, witnesses some advance in the interest of the insane person, for his comfort or for his treatment, and all engaged in this department of medicine now strive to obtain the most liberal interpretation of problems presented for their consideration.

These reflections follow a perusal of the last report of the McLean Hospital. In reviewing what has been accomplished and in what direction energy is to be expended in the future, Dr. Cowles reveals the inspiration of a great progress. We do not assert that Dr. Cowles has been alone in pointing the way, but the successful development of the McLean Hospital, under his guidance, has represented the tendency of thought, and has justified the liberal policy of the present day. The new McLean is the most complete departure from the monastery plan of institutions. Its separated houses were intended to appeal to the patient as a system the least removed from home life. A possible element of failure lay in the increased cost of maintenance. This objection seems now in a fair way to be met, as the community from which the hospital derives its support, has responded, and each year the income and demand for accommodation increase without curtailing the admission of indigent people, who are regarded by an endowed hospital as proper recipients of its ministrations.

Dr. Cowles desired to overthrow the barriers between the institution of the insane and the public, and ventured at once to the extreme of liberality to accomplish this purpose. He has cultivated the admission of patients at their own request, and upon their own volition, and each year has seen an increase in the number thus seeking treatment, which now includes more than half of the admissions. The fact suggests the importance of an inquiry into the significance of commitments, and the proper scope of judicial proceedings, especially as the legal conception of insanity has not kept pace with the advance in medical knowledge, and is at least one hundred years behind the time.

But apart from these economic and sociological questions which Dr. Cowles discusses in an entertaining way, the feature of the

report of this year lies in its treatment of the scientific aspect of psychiatry. The studies in mental philosophy which have emanated from McLean merit much more attention than they have received. In his earlier work upon fatigue, neurasthenia and the genesis of insanity, Dr. Cowles gave instructions in practical psychology which theorists in this department would do well to imitate. He accomplished a greater result in delimiting mental symptoms in a way to call for an investigation into their causes. This investigation is now under way. It is proposed to study technically the nutrition in health and disease, tissue metabolism, the blood and the excretions. A laboratory of chemical physiology has been organized at the McLean, and is now in active operation. Of its work, under an expert in this line, Dr. Cowles writes as follows:

The chemical laboratory is gradually taking an assured place in fulfilment of the general plan that has been more than twenty years in developing. During the past year this laboratory has been coming into the close relations with the clinical services long ago prescribed for it as likely to open a fruitful field in the study of bodily conditions associated with mental disorders. With the belief that is held here in the practical importance of such investigations, it seems fitting to specify with some precision, in this report, the nature of the work that is being undertaken. It has been urged in these reports for a number of years that the problem to be dealt with here is very largely that of nutrition. The nutrition question is fundamentally a chemical one. It means not only observation and research in the physiology of digestion and its disorders, but investigations of the processes by which the tissues and cells exercise their power to feed themselves from the nutritive elements conveyed to them in the blood,— the processes by which the body makes over food materials into itself, uses them in work, and excretes the waste products. It is the disorders of these processes of metabolism that have a large part in the derangements of nutrition and the dependent functions of the nervous system; and it is to such derangements that disorders of the mental functions may be due in many cases. The methods of study involve the application of the latest results in the remarkable progress that is being made in physiological and pathological chemistry, and the precise chemical estimation of the food ingested and the excreta.

Dr. Folin has made a clear statement concerning his work in his recent summary of what he is doing; the following abstract of it will readily indicate the character of the work:—

The most important work in this department during the year has consisted of metabolism experiments. Preliminary to this work, and going hand in hand with it, certain analytical operations, upon which depend the

value of all metabolism investigations, have been tested as to their accuracy, and some new methods have been devised. One of these was Dr. Folin's "New Method for Determining Ammonia in Urine and other Bodily Fluids," which is now in constant use in the laboratory, and the paper has been published (*Hoppe-Seyler's Zeitschrift*, 1902). Mr. Shaffer, the assistant in the laboratory, has made careful historical study of former methods for this purpose, and they were all found to be quite unsuitable for metabolism work; he has also devised a new modification of the "vacuum distillation method" which greatly reduces the time of the operation and yields accurate results. His paper is a well-written contribution "On the Quantitative Determination of Ammonia in Urine," and has been published (*American Journal of Physiology*, 1902). The method for determining urea, published from the laboratory last year by Dr. Folin, has been further perfected, and the objections raised against it disproved (*Hoppe-Seyler's Zeitschrift*, 1902); also the "Method for Determining Ethereal and Total Sulphates in Urine" has been improved (*American Journal of Physiology*, 1902). A method has also been worked out by means of which the excess of mineral acidity and alkalinity in urine can be determined with comparative ease. This factor is of considerable importance in certain abnormal metabolic conditions; the method is not yet published. This analytical work is necessary, as was mentioned in last year's report, because of the imperfections that still render most analytical methods of clinical chemistry too inaccurate to permit the detection of even marked metabolic changes, and pathological conditions, as indicated by variations in the excretions.

The experiments in special cases previously begun were continued during the year. The case of peculiar phosphate metabolism discovered last year has received further careful study, and a part of the chemical results have been published in a paper by Dr. Folin and Mr. Shaffer (*American Journal of Physiology*, 1902). A more complete report of this case, including a study of the mental symptoms, will be published. A study is being carried on of metabolism in certain classes of cases in the hope of discovering a similar abnormality in the phosphate excretion, but as yet without positive results.

More extended metabolism experiments were begun, and accurate analytical data are now being collected, which, it is hoped, will contribute to the question as to what classes of mental diseases are, and what are not, due to disorders of metabolism. These experiments have consisted in keeping patients, for a short time, on a uniform, but acceptable diet of known nitrogen value, and carefully determining quantitatively the forms in which this nitrogen is eliminated in the urine; the purpose is to learn whether any unusually large fraction of the nitrogen so eliminated appears in forms, or in quantities, unknown to the normal nitrogen metabolism.

The work here outlined is regarded by Dr. Folin as the most important part of the investigations that should be carried on, for some time to come, in the chemical laboratory. As the analytical investigations already made

have helped very much to make this metabolism work more effective, so the plan for its continuation should be to broaden these experiments as much as may be feasible. In this way only can conclusions be reached concerning the important question whether any tangible relation between faulty nutrition, or other faulty metabolism, and different forms of mental disease can be established. It is clear that this work, calling for a very large number of analytical determinations, all of which must possess the greatest possible accuracy, is a large undertaking. The progress of this work will be aided by the continuous refinement of methods, and the constant discoveries of new features in physiological and pathological metabolism. This line of inquiry may be hopefully pursued in the expectation that the exact study of clinical facts by such methods may reveal explanations of them that will throw some light upon the main purpose of these practical researches through which guidance for treatment is to be sought. The report is concluded with the remark that the equipment of the chemical department is practically very complete; and chemical investigations can now be carried on the McLean Hospital under unusually advantageous conditions. The only material want that is not fully met in this department is that of files of certain periodicals; some complete sets of these are yet needed for the frequent consultation that is required of the work of many other investigators in physiology and chemistry, whose progressive activity was never greater than at the present time, making convenient references to the newer and older literature of the subject an important aid to present inquiry.

This important announcement speaks for itself. We hope its value will be impressed upon alienists, and that a general movement will be made in our hospitals toward the study of living conditions. A field of great promise lies here, to compensate the disappointment on the results of years of section-cutting upon which too much energy has been lost.

Obituary

ALONZO BLAIR RICHARDSON, M. D.

Dr. Alonzo Blair Richardson, eminent as an alienist and neurologist throughout the United States, and latterly attaining distinction as the superintendent of the Government Hospital for the Insane at Washington, D. C., died in that city on the evening of June 27, 1903, after but a few hours' illness. Dr. Richardson was born near Harrisonville, Scioto county, Ohio, September 11, 1852. The extent of his life's work, which was filled with achievements that would have made busy a much greater span of years, was, therefore, bounded by the narrow limits of half a century, with the exception of a fraction of a year. His childhood was passed among the activities of country life, and to him there came parental affection and care from those from whom he inherited traits of intelligence and dominant character that in his subsequent years came to be so distinguishing in the characteristics of Dr. Richardson. From them, too, there came, in the wholesome and quickening atmosphere of the home, that mental and moral fiber which was the warp of his life, insuring its strength and integrity, and weaving into it, by his early environment, habits of industry, resolution and aspiration for higher things. Entering, at the age of eighteen, the Ohio University at Athens, Ohio, he remained two years, going thence to the Ohio Wesleyan University at Delaware, Ohio, becoming known at both institutions as a capable, substantial youth, who realized the object of his student's life and meant to make the most of his opportunity. In the fall of 1874 he attended his first course of lectures at a medical college in Cincinnati, Ohio, and the next year entered the Bellevue Hospital Medical College at New York City, where he was graduated in 1876. Returning to Ohio he accepted a position as assistant physician under Dr. Richard Gundry, who was at that time superintendent of the State Hospital at Athens, Ohio. Thus, in his early career he had for

Sincerely yours

W. H. Anderson

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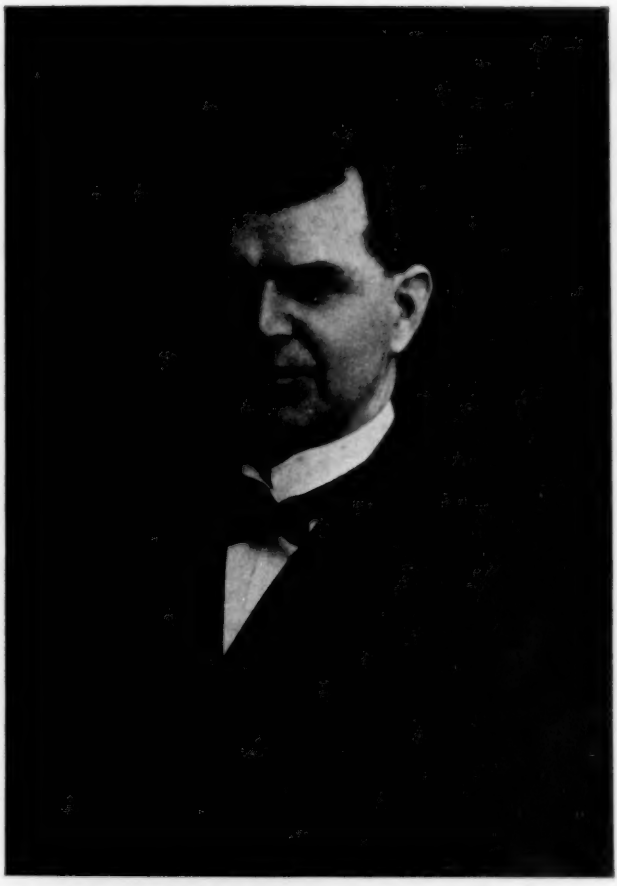

Sincerely yours
A. B. Richardson

his preceptor one of the most distinguished alienists of that period, and it is recognized that the character of Dr. Gundry formed a sphere of influence that affected lastingly the life work of Dr. Richardson. In 1880 Dr. Richardson was appointed superintendent of the institution at Athens. He filled this, his first superintendency, until 1890, with that manifest zeal, progressiveness and graciousness that were the marks afterward of his eminence as a hospital superintendent. Following a political reorganization of the State in 1890, Dr. Richardson was in private practice in Cincinnati, in his specialty of nervous and mental diseases. In 1892 he was, without solicitation or suggestion on his part, unanimously elected to the superintendency of the State Hospital in Columbus, Ohio, and retained this position until the completion of the new State Hospital at Massillon, Ohio, in 1898. He had been one of the board of constructors of that institution from its first inception, and had largely shaped its plans. He took a deep interest in its construction and it was mainly due to his influence that its arrangements and appointments were so complete as to render it one of the model institutions of this character in the country. Fittingly he was made its first superintendent and had the privilege of consummating an enterprise which he had helped to foster and guide from its earliest beginnings. He had scarcely completed the organization of the hospital at Massillon when a vacancy occurred in the superintendency of the Government Hospital for the Insane in the city of Washington, and he was appointed to that position in October, 1899. Immediately after taking charge of the Government Hospital, Dr. Richardson began to exert some of his dominant spirit and energetic individuality upon the institution. Its modernizing and enlarging was his first care, and it was not long before his views, coincided with by the board of visitors to the hospital, were placed before the Congress of the United States, with the result that a special appropriation of $1,000,000 was made for an extension of the institution. In addition to this, Dr. Richardson took up the matter of other large projects for the enlargement of the hospital, and, as events later proved, was singularly successful in securing from the National Legislature liberal appropriations with which to carry them on. His work in this connection was enormous, and made heavy drafts upon his energies. With his work at the Government Hospital

but partially completed, and with many other plans in view of immense importance to the institution, the call came for the cessation of his earthly labors. Testimony of Dr. Richardson's administration of the Government Hospital is given by Dr. Francis M. Gunnell, retired medical director of the Navy, and for some years president of the board of visitors of the institution, in the following language:

"The first thing Dr. Richardson did after taking charge was to call attention to the insufficiency of accommodations for patients. At his solicitation, Representative Cannon of the House Committee on Appropriations visited the hospital and made a personal investigation of the condition of affairs. And I want to say right here, that, as far as I know, Dr. Richardson was the only man who ever asked Mr. Cannon for an even million dollars and got it at once and without question. This million is now being used in the erection of twelve new buildings, which are much needed. Dr. Richardson's knowledge of the needs of the institution impressed Mr. Cannon so much that he not only favorably reported the appropriation for modern buildings, but went on the floor of the House, and passed the bill without a dissenting vote."

The high regard in which Dr. Richardson was held by the members of the board of visitors to the institution of which he was in charge is well exemplified by the following, adopted at a special meeting of the board, composed of persons eminent in professional and official circles in Washington: "Our intimate association with him had greatly endeared him to us as man and friend, while our close observation of his work had inspired in us profound respect and admiration. He brought four years ago to his high place here a national reputation as an alienist, and wide repute as an administrator. At this hospital he was at once called upon to plan for great enlargement; to become expert physician in a difficult specialty; head of a large staff; practical architect and builder, and executive officer of a vast establishment. He promptly won the confidence of both his subordinates and his superiors, in a notable degree of the Secretary of the Interior and of the Congress of the United States. The very large appropriations made for the extension and modern equipment of the hospital have been expended under his supervision, and with remarkable wisdom, economy and success. The institution will never

cease to bear the marks of his foresight and his indefatigable labors. We rejoice that he planned so generously, and that he saw the execution so far advanced, while we grieve that he did not remain among us to see the full fruition of his hopes.

"Dr. Richardson's fine attainments as a scientist; his constant study, keeping him abreast with the latest developments in his specialty; his acute, comprehensive and practical intellect, and his genius for administrative details, fitted him in a singular degree for the position in this institution that he so signally adorned, and made his counsel sought far and wide by those charged with the care of the insane. His noble character of dignity, modesty, sympathy, generosity, helpfulness toward men and faith in God, made him honored and beloved wherever known. Not only the world of science, but also the world of philanthropy, is poorer for the sudden cessation of his intelligent, laborious and unselfish ministry."

As an alienist Dr. Richardson ranked with the foremost men of the day in that profession. Amid the multiplied demands of his position he continued an enthusiastic student. He did not lose himself nor exhaust his energy in administration. He had a professional interest and a sense of professional pride and responsibility that only deepened as the years went on. He kept himself abreast with the progress of his specialty and he promptly adopted every new method that commended itself to his judgment. He must be counted among the foremost of those who have led in the notable amelioration and improvement in the treatment of the insane that has taken place within the last quarter of a century. In the field of medical literature, Dr. Richardson occupied a high place, and, despite his busy life in other respects, found time to contribute to some of the leading journals of the time. From his pen came numerous papers for discussion before the various medical bodies of the country, before whom they were always received with heightened interest by reason of their distinguished author. Insanity and its causes among the American troops in the Philippine and Cuban campaigns formed some of the subjects from his ready pen. As a man, Dr. Richardson had always before him an ideal of right; he had always within him a sense of duty. Life, all life, to him was moral. His ethical sense permeated his intellect, his affections,

his will. About him there was no loud self-assertion. His whole bearing was modest and unassuming. He was quiet, but beneath this quiet exterior there glowed a ceaseless earnestness. It could be seen in those well marked lines between his brows and in the light of his deep set eyes. It could be felt in the tone, the pitch, the quality, the accent of his voice. Dr. Richardson was a member of the Columbus, Ohio, Academy of Medicine, the Ohio State Medical Society, the New York Medico-Legal Society, the American Medico-Psychological Association, of which he was elected president at the recent meeting in Washington, and an honorary member of the Medical Society of the District of Columbia. A late honor conferred upon Dr. Richardson was his selection by Secretary of State John Hay to represent the United States as a delegate to the Congress of Hygiene and Demography, which meets in September next in Brussels, Belgium. Dr. Richardson was professor in mental diseases in both Columbian and Georgetown Universities, in Washington. He is survived by a widow, Mrs. Julia Dean Richardson, and four children. These latter are Dr. William W. Richardson, Mrs. W. G. Neff, Miss Edith Harris Richardson and Miss Helen Richardson.

C. H. C.

ORPHEUS EVERTS, M. D.

Another Nestor of psychiatry has gone into the past. Dr. Orpheus Everts, Medical Superintendent of the Cincinnati Sanitarium at College Hill, Ohio, died at his post of duty June 19, in the 77th year of his age. Dr. Everts was born in Union County, Indiana, December 26, 1826. His family came as pioneers in 1795 from Rutland, Vermont. His father was Dr. Sylvanus Everts. His early education was obtained in the common schools. Dr. Daniel Meeker, of Laporte, was his preceptor. He was graduated M. D. in 1846, from the Indiana Medical College and received *ad eundum* degrees from the University of Michigan in 1865 and from Rush Medical College in 1867. He began professional life in Charlestown, Ills., and married there in 1847, Mary, daughter of G. W. Richard, with whom he was associated. Later he located in Indianapolis for a time. In the later fifties he edited the "Laporte Argus" for three years, studied law and was ad-

mitted to the bar, served as presidential elector in 1856 and was register of the Wisconsin land office from 1857 to 1861.

At the opening of the Civil War he became surgeon of the 20th Regiment, Indiana Volunteer Infantry, and served actively with the army of the Potomac for four years, or until the peace, in various medical capacities by well and hard earned steps, up to medical director, participating in every important battle, excepting Bull Run and Antietam, on one occasion remaining at the operating table 52 hours without rest, an ordeal which few men could endure. Immediately after the war he was engaged for a time in editing a history of the United States Sanitary Commission. In 1868 he became Superintendent of the (now Central) Indiana Hospital for Insane at Indianapolis, resigning in 1879. During the eleven years of his incumbency the foundations were laid for the present large development of this institution and marked progress was made in the methods and extent of the care of the State's insane. From 1880 till his demise, 23 years, Dr. Everts was Medical Superintendent of the Cincinnati Sanitarium, which institution has, under his able administration, maintained a leading position among private hospitals for the nervous and insane. During all his life he was a frequent and welcome contributor to the medical press, was widely known as an alienist, and was much sought as a consultant and an expert in medico-legal cases—that of Guiteau on behalf of the government among others.

Literature and fine arts engaged his attention to a marked extent. His most pretentious literary publications are: "Giles & Co., or Views and Interviews Concerning Civilization," a novel illustrating some phases of heredity; "The Cliffords," an allegory with impersonations of religion and science; "Facts and Fancies," an American epic in blank verse. He was a member of the Loyal Legion, the Masonic order and many of the local and national medical societies and one of the oldest and strongest pillars of the American Medico-Psychological Association of which he was president in 1886. One of the last acts of his long life was the preparation of a paper on mental diseases for the New Orleans meeting of the American Medical Association in May, 1903. During a period of half a century he was a prominent figure in every walk in which he moved. He was large and noble both

physically and intellectually. But the grandeur of his character could only be fully appreciated by those who knew him well, for he was a reserved and modest man. He wrote much and his thoughts were usually those of a broad and deep philosophy, ignoring the little details of action. He was a thinker rather than a doer all his life, yet he never failed in any duty involving action, and was always *in mediis rebus*. Of unusual height and size with a classic head, a face full of character and benignity, large, sloe-black eyes, a full flowing beard and a majestic carriage, he was one among ten thousand, even to the stranger, in his prime. In later years when time had changed the jet black hair and beard to snowy white he looked a veritable Moses; and the gaberdine-like costume which he habitually wore added much to this effect. A friend writes of his last days as follows:

"A giant in intellect as well as stature, he attained distinction as physician, soldier, jurist, statesman, litterateur, poet and philospher, and retained his finely organized and cultivated mentality almost to the closing hours of his life. In full consciousness that the end was near, he viewed the approach of the 'grim reaper' in the same philosophical spirit in which he had lived, without regret for the past or fear for the future, manifesting to the last his usual thoughtfulness in the welfare of others and his kindly appreciation of the warm remembrances of numerous friends whom he was unable to see in person."

The end was peaceful and painless from respiratory failure, preceded for some weeks by inability to assimilate sufficient nourishment to sustain the vital functions.

Under the auspices of the Loyal Legion, brief services were held by the Rev. John C. Ely at College Hill, on Sunday, June 21; and enfolded in the flag under which he fought, his remains were laid to rest in Crown Hill Cemetery, Indianapolis, on June 22, 1903.

A widow, a son, Dr. C. C. Everts, of Indianapolis, and two daughters, Mrs. W. O. Robb, of New York, and Mrs. J. K. Brice, of Lima, Ohio, survive him. Two sons are deceased.

Abstracts and Extracts

Sur la présence d'albumines coagulables par la chaleur dans le liquide céphalo-rachidien des paralytiques generaux. Par GEORGES GUILLAIN ET VICTOR PARANT. Revue Neurologique, An. XI, p. 406, April 30, 1903.

The authors have examined 36 patients of whom 16 were paretics, and in the latter the cerebrospinal fluid when brought to the boiling point showed a marked precipitate and the quantity of normal globulin was increased. This reaction was not present in cases other than paresis. The pathological albumen was coexistent with lymphocytosis, but was not dependent upon the presence of the leucocytes because it exists in cerebrospinal fluid which has been deprived of the leucocytes by centrifugalizing. Doubtless the anatomical lesion which allows the passage of lymphocytes into the cerebrospinal fluid also allows the passage of albumen from the blood or lymph. The test for albumen should be made by heat and not by any other method. Two or three cc. of the cerebrospinal fluid should be taken in a test tube and the whole amount boiled, not merely the upper part of the fluid. W. R. D.

THE DIAGNOSIS OF GENERAL PARALYSIS OF THE INSANE. By William L. Russell, M. D. Buffalo Medical Journal, Vol. LVIII, p. 723, May, 1903.

The author presents his paper with the idea that it will supplement a paper by Dr. Dercum on the same subject, in which the latter dwelt particularly upon the very earliest symptoms when diagnosis is most difficult. Dr. Russell presents the disease in somewhat later stages when it is only difficult of recognition through lack of familiarity. The following etiological factors should be kept in mind when considering a case. 1. General paralysis is a disease of modern civilization and is most apt to be found in the larger centers of population. 2. Absence of hereditary tendency to mental and nervous diseases is more frequently observed in general paralysis than in other forms of mental disease. 3. It is more frequent in the male sex than in the female. 4. A large majority of cases occur between the ages of 35 and 45. The disease may, however, appear at any age. 5. It is usually found in those given to dissipation of all kinds. 6. Syphilis is one of the most potent factors in the causation of general paralysis. The physical symptoms which are of most value in making a diagnosis are as follows: 1. Progressive inco-ordination and paresis of all or of portions of the general muscular system. 2. Tremor especially of the lips, tongue, and muscles of expression. 3. Embarrass-

ment of speech. 4. Pupillary anomalies. 5. Disturbances of the reflexes. 6. Sensory disorders. 7. Trophic changes. 8. Epileptiform and apoplectiform seizures. In conclusion the author emphasizes the following points: (1) the necessity and importance of recognition, by the family physician, of general paralysis and other forms of mental disease in their early stages; (2) the relation of modern civilization to the prevalence of general paralysis; (3) the relation of syphilis as a causation factor; (4) that the characteristic of general paralysis is the concomitant appearance of physical and mental symptoms; (5) that the physical signs are definite, characteristic, and, as a rule, easily discoverable; (6) that the essential feature of the mental condition is weakness. W. R. D.

L'Importance Diagnostique des Lesions Vasculaires dans la Paralysie Generale. Par M. le Prof. Mahaim. Bulletin de l'académie Royale de Médicine de Belgique, t. XVI, p. 789, Decembre, 1902.

Prof. Mahaim answers the assertions of Dr. Havet made in a paper published in a previous number of the same journal (See abstract in this Journal, January, 1903), that the vascular lesions observed in the cortex of persons dying with mental disease have little diagnostic importance. He inclines to the view that some of the cases reported by Havet as dements or imbeciles may possibly have been paretics, and gives in detail a case of his own which he has temporarily diagnosed as senile dementia, although he says that this diagnosis may later prove to be erroneous. He states that in the drawings illustrating Dr. Havet's article he has found lymphocytes, cells with vacuoles, and with large pale nuclei. Althougn Vogt most frequently finds plasma cells, Mahaim finds lymphocytes, and believes that this divergence may be due to difference in technique. He concludes by stating that while the perivascular infiltration has been found in but five out of 154 cases of mental disease other than paresis, Vogt, Havet, Bleuler, and himself have found it in 66 cases of paresis and he consequently considers it justifiable to affirm that vascular lesions are of considerable diagnostic importance in paresis. W. R. D.

Dosage de L'Albumine du Liquide Cephalo-Rachidien au Cours de Quelques Maladies Mentales et en Particulier de la Paralysie Generale. Par. L. Marchand, Revue de Psychiatrie, Tome X, p. 196, May, 1903.

The author refers to the papers of Monod, Wolf, Widal, Sicart and Ravaut, and Guillain and Parant. He points out that the results of Leri do not agree with those of other writers. Leri found the cerebro-spinal fluid not coagulable by heat, but by nitric or picric acid. Marchand has tested for albumin in 21 cases of insanity using Esbach's reagent, and finds an increase of albumin in 12 cases of paresis and a normal amount in 9 cases of melancholia, dementia, etc. The quantity may vary markedly being increased in one patient 50 per cent in 15 days. The author comes to the following conclusions: The cerebro-spinal fluid of paretics generally contains a greater quantity of albumin than normal cerebro-

spinal fluid. The quantity of albumin does not vary proportionally with the period of the disease. The quantity of albumin has a diagnostic value when one gram or more is present per litre. The quantity of albumin in the cerebro-spinal fluid of paretics may vary in a few days in the same patient. In no other form of insanity did the quantity of albumin in the cerebro-spinal fluid amount to one gram per litre. W. R. D.

Book Reviews

Le Syndrome Urinaire dans la Scarlatine et la Diphtherie de l'enfance. Par le Dr. Raoul Labbe. (Paris, 1903, Jules Rousset.)

This exhaustive study of the urine in scarlatina and diphtheria occupies over 200 pages and has apparently been most carefully done. The conclusions to which the author has arrived occupy but four pages at the end of the book, the bulk of it being occupied by a careful description of the manner of experimentation and methods of investigation employed. A number of tables are annexed which give in detail the findings in distinct cases. In each case the author has investigated the weight of the body, the size, the quantity of urine, the density, reaction, total urea and azotal, uric acid, phosphates, chlorides, renal permeability, cryoscopy, elimination of chlorides given in food, the diazo reaction, urinary pigments, and presence of albumen. While the literature on the study of urine of children is large a great deal of the results published are not so exact nor so carefully done as are those of Dr. Labbe. The literature on the urine in scarlet fever and diphtheria is comparatively small and this work forms a very valuable addition to it. We take pleasure in recommending this work to those interested.

W. R. D.

Fourth Annual Report of the State Board of Insanity of the Commonwealth of Massachusetts, for the year ending September 30, 1902. (Boston: Wright and Potter Printing Co., State Printers, 1903.)

This report is of great interest to those concerned in the state care of the insane. It first refers to the overcrowding in hospitals and discusses means of providing the greater accommodation which is so urgently needed. The solution which is advocated necessitates the division of the insane into three classes. First, a small number, the acute class, which shall be treated in a hospital where they can be studied in a scientific manner, given proper treatment, and have the best opportunities for cure. Second, the safe custody and humane care of the dangerous and infirm in an asylum. Third, the restoration of the quiet, harmless and able-bodied to natural conditions of living and their training into habits of industry and usefulness in colony. The details of this plan are elaborated and it seems to be quite an ideal one. Estimates required for the various state institutions follow and brief résumés of the occurrences since the last report. The boarding-out system is fully reported, and a number of tables give financial and statistical details.

W. R. D.

Ueber Hohenkuren für Nervenleidende. By DR. B. LAQUER. (Halle, 1903, C. Marhold.)

This is one of the valuable series on nervous and mental diseases which is edited by Dr. A. Hoche and is a monograph of 19 pages. The author first discusses the results which have been obtained by the open air treatment in various resorts such as the Riviera, Davos, and St. Moritz, and the various views of different authors concerning this treatment. He next takes up the different therapeutic measures which are adjuvants to the treatment, such as baths and gymnastics, and enumerates the conditions in which such treatment is likely to be of benefit. Among these are neurasthenia, hysteria, cyclothaemia, etc. A high altitude is contraindicated in senile conditions, epilepsy, arterio-sclerosis, emphysema, nephritis, severe organic nervous diseases, etc. The work is very interesting and is written in a more or less popular style.

W. R. D.

Geschlecht und Kopfgrosse. By DR. P. J. MOEBIUS. (Halle, 1903, Carl Marhold.)

This is part five of the series Beiträge zur Lehre von den Geschlechts Unterschieden by the same author, and forms a monograph of 47 pages. The author has divided the work into three sections, the first, General Considerations; second, Concerning Heads of Prominent Men; third, Concerning Female Heads.

The author believes that there is a relation between the size of the head and mental ability and that the differences in the sizes of heads between men and women is due to the mental differences in the two sexes. In investigating this subject he has made use of the apparatus employed by the retail hatters when a special hat is to be made, the "conformateur." In the second part the author gives a long table which shows the breadth, length, cephalic index, and circumference of the heads of 360 men of more than average ability. In the last section besides giving numerous head measurements, the author attempts to prove that body length and weight have but slight significance in indicating mental ability as compared to the size of the head. A number of diagrams add to the interest of the work.

W. R. D.

Ueber Geistesstörungen in der Armee zur Friedenzeit. By DR. GEO. ILBERG, Staff-physician. (Halle, 1903, Carl Marhold.)

This is a very interesting monograph of 27 pages. The author first speaks briefly of the factors which are found in military life in times of peace to be etiological to insanity. The most important class from its size is feeblemindedness or imbecility. Homesickness is an important factor and is most frequent in the first month of the recruit's life. It may lead to acute melancholia, nearly one third of the suicides which occur in the army being in this class. There is also a form of

world weariness without homesickness. Suicide in the army is dealt with exhaustively.

Alcohol is an important factor in the production of insanities found in soldiers and this subject is dealt with at some length. Post-epileptic conditions are also treated quite fully. Moral imbecility is frequently seen and it is usually difficult to differentiate a moral imbecile from a true criminal. Dementia praecox is fairly frequent and is discussed thoroughly.

The book is well worth perusal and is written in such a way as to be interesting to medical men who are not specialists in psychiatry.

W. R. D.

Die Anwendung von Beruhigungsmitteln bei Geisteskranken. Von Prof. Dr. H. Pfister, I. Assistenten der psychiatrischen Klinik in Freiburg. (Halle, 1903, Carl Marhold.)

This pamphlet of 39 pages belongs to the well-known series on nervous and mental diseases intended for the general physician, and edited by Dr. A. Hoche. It is a great pity that there is not a similar series in English. These pamphlets, giving as they do an epitome of the most modern views of special diseases in a cheap, convenient form, are of great value. In the present number Dr. Pfister deals with the therapeutic measures necessary for the treatment of cases of insanity in general practice, and deals with the subject in a simple yet comprehensive manner. He divides his subject into two parts, the first, on causal therapeutics, which is dealt with briefly, and the second, on symptomatic therapeutics, which is treated of at much greater length. In the latter the author discusses the methods and contraindications for forced feeding, the diet, baths, electro- and thermo-therapy and gives rules for the use of sedatives and hypnotics. Finally, he discusses psychic treatment. The book is an excellent one.

W. R. D.

The Internal Secretions and the Principles of Medicine. By Charles E. de M. Sajous, M. D. (Vol. I, Philadelphia: F. A. Davis Co., Publishers, 1903.)

While only ten years ago our knowledge of the so-called ductless glands had scarcely passed beyond the stage of a general appreciation of their relationship to certain gross manifestations of disease, much valuable work has since been accomplished in the attempt to gain an insight into their physiological function. We recall the epoch making researches of Baumann, Roos and Oswald on the thyroid, the painstaking investigations of v. Fürth, Abel, and Takamine on the adrenals, the studies of the pituitary body by de Cyon, etc. As matters stand the subject is a most fascinating one and it was to be expected that sooner or later a speculative attempt would be made to explain some of the most vital phenomena with which the physiologist has to deal on the basis of an inter-relationship between one or more of the ductless glands and the various organs

of the body at large. Such an attempt Sajous has made and the voluminous work before us in the outcome. In going through its pages we are struck at once with the extensive reading and steadfastness of purpose of the author. From all possible domains of the natural sciences and the most varied sources of literature observations have been culled and reprinted in extenso, which may have a bearing on the subject under consideration and tend to support Sajous' views.

Interesting as the reading is we cannot help but feel, however, that the undertaking has been premature. The attempt is brilliant, typical of the French scholar; but the basis of the structure lacks stability and we fear also that the underlying idea is not sufficiently broad. Sajous gives prominence almost exclusively to the adrenal glands, while the question of the internal secretion of other organs receives comparatively little attention. To criticise the work step by step would be impossible in this place. The work is not the outcome of personal experimental research, but represents a series of deductions based upon the work and conclusions of others, which in turn are very often open to criticism. To repeat once more, the attempt is brilliant but the facts do not warrant the conclusions.

C. E. S.

Les Obsessions et la Psychasthenie II. Fragments des leçons cliniques du mardi sur les etats neurastheniques, les aboulies, les sentiments d' incompletude, les agitations et les angoisses diffuses, les algies, les phobies, les delires du contact, les tics, les manies mentales, les folies du doute, les idees obsedantes, les impulsions, leur pathogenie et leur traitement. Par. Prof. F. Raymond et Pierre Janet. (Paris, 1903, Felix Olcan.)

This is the second number on the same subject by Dr. Janet and comprises the fourth series of reports from the psychological laboratory of la Salpêtrière. It contains over 500 pages, and it consists largely of reports of cases, but these are accompanied by sufficient comment to amplify symptoms so that a clear clinical picture is presented to the reader. The work is written with the idea that a study of the cases will be of value to the psychologist as well as to the physician. It is a valuable and extremely interesting work and we know of no more careful study of neurasthenic conditions. The book is divided into two parts, the first, on lowerings of the mental plane, containing chapters on the physio-physchologic insufficiencies, feelings of incompleteness, pyschasthenia and epilepsy, agitations, phobias, tics, and mental agitations. These chapters are further subdivided into sections and in all 146 cases are discussed in the first part. Part two is given over to a consideration of obsessions, and contains chapters on hypochondriacal ideas, obsessions of shame, obsessions of crime, obsessions of sacrilege and "accidents vesaniques." Ninety cases are considered in this part. A very excellent index adds to the value of the book. To those interested in the study of nervous or mental diseases we would recommend a perusal of this work.

W. R. D.

Beitrage zur Lehre von den Geschlechts-Unterscheiden. Von Dr. P. J. Möbius. (Halle, 1903, Carl Marhold.)

Heft 1. Geschlecht und Krankheit. Heft 2. Geschlecht und Entartung. Heft 3-4. Ueber die Wirkungen der Castration.

The above are the first numbers of a series of monographs on sex and are probably outgrowths of a previous work by Dr. Möbius namely: "Ueber den physiologischen Schwachsinn des Weibes."

The first, Geschlecht und Krankheit, is devoted to a study of diseases in relation to sex and is divided into four chapters namely, diseases occurring in but one sex, diseases with distinct sexual differences because of natural conditions, diseases with distinct sexual differences because of modes of living, and diseases without distinct sexual differences. It is needless to say that the study has been well done and is most interesting.

The second monograph is divided into three parts, the first treating of the Normal Human; the second of Disturbances of Sexual States, with subheads of (1) Hermaphroditism, (2) Hypospadias, Cryptorchids, Infantilism, etc., and (3) deviations of sexual instinct and blunting of sexual character. Like its predecessor it is interesting and of practical value.

The double number on the effects of castration is a careful and exhaustive study of the physical and mental changes which follow this operation as seen in man and in the lower animals. The first twenty-five pages are given up to an introduction and a historical sketch. In the remainder the author treats of the changes found in bones, muscles, skull, brain, etc., and mental activity, concluding with some general remarks and a list of the literature. We commend this series to those interested in sex studies.

W. R. D.

L'Hystérie de Saint Thérèse. Par Rr. Rouby. (Paris: 1902, Bureaux de Progrès Médicale.)

This interesting monograph forms one of the Bibliothèque Diabolique (Collection Bourneville), and originally appeared in the Revue Neurologique. The writer takes up the life and writings of Therésè de Cépèda, born in 1515, and shows that she was evidently a subject of hysteria. He considers the duration of the disease to have been twenty-five years and during this period she saw visions, had aural hallucinations, etc., which she later described in the following five works: Relacion de su Vida; el Camino de la Perfectione; El Libro de los fundaciones y los morados; El Castillo interior; and, los Conceptos de Amor de Dios. For those who care for the curious in medicine this monograph gives much entertainment.

W. R. D.

Recherches cliniques et thérapeutiques, sur l'Épilepsie, l'Hystérie et l'Idiotie.—Compte-rendu du service des enfants idiots épileptiques et arriérés du Bicêtre pour l'année, 1901, par Bourneville. (Paris, 1902, Bureaux du Progrès Médicale.)

The annual report of the work done at the Bicêtre by Dr. Bourneville and his colleagues is of great interest to those interested in nervous and mental diseases. The present report follows the plan of the preceding numbers

in devoting the first part of the work, over 160 pages, to the purely statistical matters, such as admissions, discharges, deaths, escapes, transfers, personnel of the staff, etc. Section three of this part contains articles by Dr. Samuel Fort, and Dr. Walter Channing on the education of imbeciles, the purpose being to publish articles which show the progress of this work in different countries, the translations of the above being the beginning of the series. In addition to the articles mentioned there are several others on the same subject by Bourneville and others.

The last part of the report is devoted, as usual, to a number of articles upon therapeutics, pathological anatomy, etc., all of them being of interest. Reports of two cases of folie de l'adolescence are given quite fully, the first having come to autopsy being subjected to a thorough histological examination. Curiously enough this does not appear in the index, the make up of this part of the work being rather carelessly done. Dr. Bourneville gives the results of treatment of cases of epilepsy with bromide of camphor. A case of porencephaly is well reported. Naturally, idiocy is the subject of the majority of the papers. There are sixteen full page plates besides numerous figures in the text. The book is well printed by the "Enfants du Bicêtre." W. R. D.

Transactions of the College of Physicians of Philadelphia. Third Series Volume the Twenty-fourth. (Philadelphia: Printed for the College, 1902.)

This volume contains the papers read before the College during the year 1902; also obituary notices of deceased members; lists of present and former officers, and fellows of the College. The obituary notices of both John Ashhurst, Jr., and Alfred Stillé, especially, are models of discriminating and restrained eulogy and all of them are worthy of careful reading.

The papers which are of interest to the readers of the Journal are Mills' and Pfahler's "Tumor of the Brain Localized Clinically and by the Röntgen Rays," Burr's and Taylor's "Case of Jacksonian Epilepsy" and Mills' "The Surgery of Brain Tumors from the Point of View of the Neurologist."

The Psychological Review. Series of Monograph Supplements, Vol. IV. (Whole No. 17), January, 1903. *Howard Psychological Studies,* Vol. I, Containing Sixteen Experimental Investigations from the Harvard Psychological Laboratory. Edited by HUGO MÜNSTERBERG. (Published Bi-Monthly by The Macmillan Company, 41 N. Green St., Lancaster, Pa.)

This is a collection of papers by members of the Harvard Psychological Laboratory, consisting of reports upon experimentation in psychology, the whole directed or influenced by Professor Hugo Münsterberg. There are five groups of papers, viz.: *Studies in Perception, Studies in Memory, Studies in Aesthetic Process, Studies in Animal Psychology* and *Studies in Psychological Theory.* The work is of limited practical value, except to psychologists, or, more particularly, investigators or experimenters, and is severely technical.

Pamphlets Received

Hyoscin in the Treatment of Morphinism: its Office and Value. Geo. E. Pettey, M. D. From Medical News, February 28, 1903.

The Treatment of Nonparalytic Strabismus: A New Operative Procedure. J. H. Woodward, M. D. Reprinted from New York Medical Journal for January 24, 1903.

Pelvic Deformity in New York City. James Clifton Edgar, M. D. From the Transactions of the American Gynecological Society, 1902.

Detroit College of Medicine. Announcement for Session of 1903-1904.

Transactions of the Luzerne County Medical Society for the year ending December 31, 1902. Volume X.

A Review of 720 Laparotomies for Gall-stones with Special Consideration of 90 Cases of Drainage of the Hepatic Duct. Prof. Hans Kehr, translated at the request of the author by Max. J. Stern, M. D. Reprinted from the Münchener medizinische Wochenschrift, Nr. 41, 42 and 43, 1902.

Renal Decapsulation for Chronic Bright's Disease. George M. Edebohls, M. D. Reprinted from Medical Record, March 28, 1903.

(a) Legislative Requirements for Registration of Vital Statistics.
(b) Practical Registration methods.
(c) Relation of Physicians to Mortality Statistics.
(d) Medical Education in Vital Statistics.
(e) Manual of the International Classification of Causes of Death. From Division of Vital Statistics. W. A. King, Chief Statistician, Census Office, Washington, D. C.

Gastrojejunostomy with the McGraw Elastic Ligature, for the Relief of Gastroptosis. H. O. Walker, M. D. Reprinted from the Journal of the American Medical Association, January 17, 1903.

The Influence of the Cervical Sympathetic upon the Eye, with two cases of Paralysis. William Cheatham, M. D. Read before the Ohio Valley Medical Society, at Evansville, Indiana, November 6, 1902. Read before the Louisville Clinical Society, October, 1902.

Thirty-sixth Annual Report of the Superintendent of the Victoria General Hospital, 1902.

The Silent Form of Epilepsy. William P. Spratling, M. D. Reprinted from New York Medical Journal, December 11, 1902.

The Surgery of Brain Tumors from the Point of View of the Neurologist, with Notes of a Recent Case. Charles K. Mills, M. D. Reprinted from The Philadelphia Medical Journal, Nov. 29, 1902.

Paralysis of all Four Limbs and of one Side of the Face with Dissociation of Sensation, Developing in a few hours and Resulting from Meningo-Myeloencephalitis. Charles K. Mills, M. D. and William G. Spiller, M. D. Reprinted from the Journal of Nervous and Mental Disease, January, 1903.

Vibratory Stimulation in Pulmonary Disease. Reprint from The Journal of Advanced Therapeutics, January, 1903.

Fifty-fourth Annual Report of the Board of Trustees and Superintendent of the Central Indiana Hospital for Insane. For the fiscal year ending October 31, 1902.

Forty-fifth Annual Report of the General Board of Commissioners in Lunacy for Scotland.

Report of the Trustees of the Bellevue and Allied Hospitals for the quarter ending September 30, 1902.

The Treatment of Chronic Diarrhea. Charles D. Aaron, M. D. Reprinted from the Medical Age, February 25, 1903. William M. Warren, Publisher.

Reflex Neuroses. By William Cheatham, M. D. Reprinted from The Louisville Monthly Journal of Medicine and Surgery, June, 1903.

Fourth Annual Report of the State Board of Insanity of the Commonwealth of Massachusetts for 1902.

For What Classes of Mentally Disqualified Persons Should the State Provide and in What Way? J. T. Searcy, M. D., Tuscaloosa, Ala.

The Value of the Roentgen Rays in the Treatment of Carcinoma. Carl Beck, M. D. Reprinted from Medical Review of Reviews.

The Roentgen Rays In Differentiating Between Osteomyelitis, Osseous Cyst, Osteosarcoma and other Osseous Lesions, with Skiagraphic Demonstrations. Carl Beck, M. D. Reprinted from Journal of American Medical Association, Jan. 4, 1902.

The Medicolegal Value of the Roentgen Rays. Carl Beck, M. D. Reprinted from Medical Record, August 9, 1902.

The Treatment of Fractures of the Lower End of the Radius. Carl Beck, M. D. Reprinted from Journal of American Medical Association, Dec. 6, 1902.

Exploratives Princip und Technik beim secundären Brustschnitt. Carl Beck, M. D. Reprinted from von Esmarch Festschrift.

Cleanliness, the Great Secret of Surgical Success. Carl Beck, M. D. Reprinted from Therapeutic Gazette, January, 1902.

The Pathologic and Therapeutic Aspects of the Effects of the Roentgen Rays. Carl Beck, M. D. Reprinted from the Medical Record, January 18, 1902.

On the Treatment of Fracture of the Anatomical Neck of the Humerus by the Aid of the Roentgen Rays. Carl Beck, M. D. Reprinted from the New York Medical Journal, April 5, 1902.

Annual Report of the New York State Reformatory at Elmira, 1902.

Appointments, Resignations, Etc.

ALLEN, DR. FLORENCE E., resigned as Assistant Physician at the Michigan Asylum for the Insane at Kalamazoo, Mich.

BAKER, DR. RAYMOND D., promoted to be Fourth Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

BARTLETT, DR. P. CHALLIS, Assistant Physician, transferred from the Danvers Insane Hospital, Danvers, Mass., to the Worcester Insane Asylum, Worcester, Mass.

BELING, DR. CHRISTOPHER C., promoted to be Third Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

BELL, DR. C. J., appointed Hospital Interne at the State Farm at Bridgewater, Mass.

BERNSTEIN, DR. CHARLES, First Assistant Physician, appointed Acting Superintendent of the Rome State Custodial Asylum, Rome, N. Y.

BESSE, DR. EARLE E., Medical Interne, promoted to be Assistant Physician at the Danvers Insane Hospital, Danvers, Mass.

BOWERMAN, DR. EDWIN A., resigned as Assistant Physician at the Buffalo State Hospital, Buffalo, N. Y.

BROWNE, DR. G. C., Formerly Hospital Interne at the State Farm at Bridgewater, Mass., appointed Assistant Physician at the Medfield Insane Asylum, Medfield, Mass.

CHRISTIANCY, DR. MARY, promoted to be First Assistant Physician at the Department for Women, State Hospital for the Insane, Norristown, Pa.

CLIFTON, DR. HENRY C., resigned as Assistant Physician at the State Hospital for the Insane, Norristown, Pa.

COLLIER, DR. G. KIRBY, appointed Medical Interne at the Craig Colony for Epileptics, Sonyea, N. Y.

COSSITT, DR. HARRY A., appointed Pathologist at the New Jersey State Hospital at Morris Plains, N. J.

CURTIN, DR. WILLIAM E., formerly at the Manhattan State Hospital, East, New York City, appointed First Assistant Physician at the Delaware State Hospital, Farnhurst, Del.

DRAKE, DR. ARTHUR K., formerly First Assistant Physician, promoted to be Assistant Superintendent at the State Hospital at Tewksbury, Mass.

EHLERS, DR. EDWIN, appointed Clinical Assistant at the Long Island State Hospital, Brooklyn, N. Y.

EVANS, DR. WILLIAM A., appointed as Assistant Physician at the Michigan Asylum for the Insane at Kalamazoo, Mich.

FITZ GERALD, DR. JOHN F., formerly Medical Superintendent of the Rome State Custodial Asylum, Rome, N. Y., appointed Superintendent of the Kings County and Allied Hospitals, Brooklyn, N. Y.

FRISCHBIER, DR. CHARLES P., promoted to be Assistant Physician at the Manhattan State Hospital, West, New York City.

GARRISON, DR. W. MILES, appointed Fifth Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

GILBERT, DR. FRANK Y., resigned as Interne at the Butler Hospital, Providence, R. I.

GORRILL, DR. GEORGE W., appointed Junior Assistant Physician at the Buffalo State Hospital, Buffalo, N. Y.

GORTON, DR. ELIOT, resigned as First Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

HAIGHT, DR. JULIUS E., formerly Medical Interne at the Utica State Hospital, Utica, N. Y., appointed Junior Assistant Physician at the Manhattan State Hospital, Central Islip, N. Y.

HAMMOND, DR. J. H., resigned as First Assistant Physician at the Delaware State Hospital, Farnhurst, Del.

HENDERSON, DR. J. M., resigned as Second Assistant Physician at the Central State Hospital, Petersburg, Va.

HORSFORD, DR. FREDERICK C., appointed Sixth Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

HOWLAND, DR. JOSEPH B., formerly Assistant Superintendent at the State Hospital at Tewksbury, Mass., appointed Superintendent of the State Colony for Insane, Gardner, Mass.

HUME, DR. B. L., formerly Third Assistant Physician, promoted to be Second Assistant Physician at the Central State Hospital, Petersburg, Va.,

INCH, DR. GEORGE F., resigned as Assistant Physician at the Michigan Asylum for the Insane at Kalamazoo, Mich.

JONES, DR. J. HAROLD, formerly Assistant Physician at the Protestant Hospital for the Insane, Montreal, Quebec, appointed Medical Superintendent of the General Hospital at New Westminster, British Columbia.

KRAMER, DR. JOST D., appointed Interne at the Butler Hospital, Providence, R. I.

LAMOURE, DR. HOWARD A., Assistant Physician, transferred from the Craig Colony, Sonyea, N. Y., to the Rome State Custodial Asylum, Rome, N. Y.

LOUPPIAN, DR. ——, appointed Medical Interne at the Manhattan State Hospital, West, New York City.

MADISON, DR. JAMES D., resigned as Assistant Physician at the Danvers Insane Hospital, Danvers, Mass.

MALLON, DR. PETER S., promoted to be First Assistant Physician at the New Jersey State Hospital at Morris Plains, N. J.

MARSHALL, DR. AUGUSTUS T., formerly of the Taunton Insane Hospital, Taunton, Mass., appointed Assistant Physician at the Boston Insane Hospital, Boston, Mass.

MILLER, DR. S. M., appointed Assistant Physician at the State Hospital for the Insane, Norristown, Pa.

MONETTE, DR. ——, resigned as Assistant Physician at the Manhattan State Hospital, West, New York City.

MONTGOMERY, DR. WILLIAM H., formerly Medical Interne at the Willard State Hospital, Willard, N. Y., appointed Junior Assistant Physician at the Utica State Hospital, Utica, N. Y.

PORTEOUS, DR. A. C. resigned as Assistant Physician at the Protestant Hospital for the Insane, Montreal, Quebec.

ROBERTS, DR. L. A., resigned as Assistant Physician at the Boston Insane Hospital, Boston, Mass.

ROWE, DR. ALICE E., appointed Woman Physician at the Gowanda State Homeopathic Hospital, Gowanda, N. Y.

SATENSTEIN, DR. DAVID L., appointed Medical Interne at the Willard State Hospital, Willard, N. Y.

SELLERS, DR. F. E., appointed Third Assistant Physician and Pathologist at the Central State Hospital, Petersburg, Va.

SHERMAN, DR. JEANETTE H., appointed Assistant Physician at the Department for Women, State Hospital for the Insane, Norristown, Pa.

SMITH, DR. MARY H., appointed Assistant Physician at the Long Island State Hospital, Brooklyn, N. Y.

STOCKTON, DR. GEORGE, appointed Superintendent of the Columbus State Hospital, Columbus, O.

SWIFT, DR. HENRY M., formerly Medical Interne, promoted to be Assistant Physician at the Danvers Insane Hospital, Danvers, Mass.

THOMAS, DR. GEORGE PALMER, resigned as Medical Interne at the Matteawan State Hospital, Fishkill Landing, N. Y.

THOMPSON, DR. CHARLES W., appointed as Assistant Physician at the Michigan Asylum for the Insane at Kalamazoo, Mich.

ULLMAN, DR. ALBERT E., Junior Physician, transferred from the Willard State Hospital, Willard, N. Y. to the Long Island State Hospital, Kings Park, N. Y.

VAN EPPS, DR. CLARENCE, resigned as First Assistant Physician at the Delaware State Hospital, Farnhurst, Del.

WALTHER, DR. ——, resigned as Assistant Physician at the Manhattan State Hospital, West, New York City.

WATSON, DR. FLORENCE HULL, resigned as First Assistant Physician at the Delaware State Hospital, Farnhurst, Del.

WHITNEY, DR. LEE A., Medical Interne, transferred from the Hudson River State Hospital, Poughkeepsie, N. Y., to the Buffalo State Hospital, Buffalo, N. Y.